

THE
PHYSICIAN'S
POCKET SYNOPSIS :

AFFORDING

A CONCISE VIEW OF THE SYMPTOMS AND TREATMENT
OF THE
MEDICAL AND SURGICAL DISEASES
INCIDENT TO THE HUMAN FRAME.

COMPILED FROM THE BEST AUTHORITIES,
with

REFERENCES TO THE MOST APPROVED MODERN AUTHORS,
TOGETHER

WITH THE PROPERTIES AND DOSES OF THE
SIMPLES AND COMPOUNDS

THE NATIONAL PHARMACOPEIA OF THE UNITED STATES.
ALPHABETICALLY ARRANGED.

BY

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DISTRICT OF MASSACHUSETTS, TO WIT :

District Clerk's office.

L. S. BE it remembered, that on the fourteenth day of December, A. D. 1821, in the Forty-sixth year of the Independence of the United States of America. J. S. Bartlett, M. D. of the said District, has deposited in this office the title of a Book, the right whereof he claims as Author, in the words following, to wit :

"The Physician's Pocket Synopsis; affording a concise view of the Symptoms and Treatment of the Medical and Surgical Diseases incident in the Human Frame. Compiled from the best authorities, with References to the most approved modern authors. Together with the Properties and Doses of the Simples and Compounds of the National Pharmacopœia of the United States. Alphabetically arranged. By J. S. Bartlett, M. D. of the Royal College of Surgeons, London; Fellow of the Massachusetts Medical Society, &c.

In conformity to the Act of the Congress of the United States, entitled, "An Act for the encouragement of Learning, by securing the copies of Maps, Charts, and Books, to the Authors and Proprietors of such copies during the times therein mentioned;" and also to an Act entitled, "An Act supplementary to an Act, entitled, An Act for the encouragement of Learning, by securing the copies of Maps, Charts, and Books, to the Authors and Proprietors of such copies during the times therein mentioned; and extending the benefits thereof to the arts of Designing, Engraving, and Etching Historical, and other Prints."

JOHN W. DAVIS, *Clerk of the District of Massachusetts.*

PREFACE.

I WAS induced to compile the present work, from the circumstance of there being no publication extant, in our language, which comprizes a brief outline of the symptoms and treatment of medical diseases, in the portable shape of a pocket volume.

It is true, that, some years ago, Dr. Elliot, of London, published a work upon a similar plan, which passed through six editions there, and three in this country, (a tolerably just criterion of its utility at that period,) but which is now nearly out of print. It was my first intention to revise that work, and to print a fourth American edition. Upon examining it, however, I found it so obsolete, and so incompatible with the doctrines and practice of the present day, as to preclude all prospect of benefitting the profession by its re-publication. I therefore determined upon the present undertaking, the utility of which must be left to the judgment of others.

It is not improbable, that some part of the arrangement may be considered liable to objections : for this is a point on which opinions are apt to differ. But it appeared to me a matter of peculiar importance, that all the diseases incident to some particular part, as the eye, the bones, the joints, &c. should be brought under one head, rather than distributed through different parts of the volume.

In this compilation, I have consulted the works of most general reference ; adding whatever appeared important, and my limits would permit, from other modern books within my reach. It need scarcely be remarked, that, in such a work, all elegance of language, even were I capable of any, must be sacrificed to brevity.

If, however, with all its faults, this work may be found of any service to the medical practitioner, as a sort of prompter to the memory, or ready-reckoner to his practice, during the fatigues and hurry of his professional avocations, whatever trouble I may have taken in the compilation will be amply compensated. The subjects are introduced by their most simple and familiar names,

so that they may be found in moments of mental relaxation without fatiguing the memory for technical terms.

To the student I flatter myself this pocket volume must prove useful ; for, by perusing a brief sketch of the symptoms and treatment of a particular disease, the facts and principles are more readily comprehended, than if read in a more elaborate work. Thus the student will acquire a general outline of his subject, will mould it, if I may so express myself, to his mind, while to fill up the colouring and finishing he may have recourse to the more copious writers referred to in every page.

It has been urged, that compilations, and particularly brief ones, have a tendency to induce young men to confine their readings to a few such abridgements, under the belief that they contain all that is necessary for them to know ; but to this it may well be answered, that to insinuate that the young professional men of this country, looking forward with zeal to wealth and fame in the honorable and noble science they have embraced will be content to sit down, and confine their studies to a pocket-volume, a surgical dictionary, and an elementary treatise upon medicine, without exploring the rich mines of medical lore, contained in the many splendid, learned, and elaborate works already extant, and daily issuing from the press, replete with all the attributes of modern erudition, is a libel upon their understandings, and an absurdity too palpable to need refutation.

Boston, January, 1822.

PHYSICIAN'S POCKET SYNOPSIS.

ABDOMEN, *Injuries of.* See Wounds of the Abdomen.

ABORTION. This term is used when the impregnated uterus parts with its contents too early for the foetus to survive; but when it occurs between the seventh and ninth month, it is called premature labour.

Symptoms. Pain in the lower part of the back and belly; shivering; a discharge of blood from the womb; nausea, anxiety, palpitation, and syncope; dilatation of the os uteri. It most commonly happens between the second and fourth month of pregnancy; though it may occur later. It is caused by plethora, blows, falls, frights, strong emetics or purgatives, death of the child, violent mental agitation, excess in venery, general debility.

Treatment. If the pulse be full, and the hemorrhage from the womb not copious, bleed, and repeat it if necessary; and adopt the antiphlogistic regimen. Keep the bowels open with mild laxatives and glysters; enjoin absolute rest, cool air, and the horizontal posture. Let all drinks be taken cold, and mostly acidulated. Should however the flooding become great, the pelvis should be elevated, and cloths dipped in vinegar and water applied cold to the os sacrum and pubes, and a piece of ice or wet rags passed into the vagina; but to be discontinued if prolonged shivering should ensue. Sedatives and astringents to be given internally; as nitre, acetate of lead, sulphate of zinc and copper, in large and repeated doses. Pain and irritation to be relieved by opium. If nevertheless abortion should follow, proceed as in ordinary cases of child-birth; and if flooding continues afterwards, pursue the same treatment, with the addition of astringent injections thrown into the uterus. In some of these latter cases, the hemorrhage has been immediately checked by exciting vomiting.

Should the placenta, which in abortion must be entrusted to nature, be retained a day or two, it may become proper to inject some mild vegetable astringent as an antiseptic, such as an infusion of chamomile flowers; but on no account should force be used for its extraction. Consult *Burns's Observations on Abortion.*

ABSCCESS. This is a collection of purulent matter in any part of the body. Abscesses are divided into *acute* and *chronic*. For the former, see Inflammation and Suppuration, and for the latter, see Psoas and Lumbar Abscess. See also Bubo, Antrum, Whitlow, &c.

ABSORBENTS. *Laxative, Magnesia. Astringent, Carbonate of Lime.*

ACACIA GUM. *Gummi Acaciæ.* Demulcent ℞j. to ʒij. in coughs, strangury, gonorrhœa, &c.

ACHILLES, TENDON, *Rupture and Division of.* This is often divided by cutting instruments, wholly or in part; it is also frequently torn asunder by any sudden and violent exertion, as running, jumping, dancing, &c. The patient suffers extreme pain, is unable to stand or walk, an interspace is left between the two ruptured extremities, and, at the moment of the accident, a sensation like the cracking of a whip or nutshell, or the blow of a stick or stone is perceived by him.

Treatment. The indications are, 1st. to relax the muscles by extending the foot and bending the knee until the divided portions of the tendon be brought into close apposition; and 2d. to retain them so, by compresses and bandages, and by securing the immobility of the parts by means of a splint applied to the fore part of the foot and leg. A bandage on the calf is particularly necessary to prevent the action of gastrocnemii muscles. The system to be kept tranquil by a moderate diet, bleeding, purging, opium, &c. The patient to remain perfectly still until a perfect union has taken place, when the limb should be gently put into motion upon a high-heeled shoe, which must be very gradually reduced. In a carpenter whom I attended with this accident, this purpose was very nicely answered by wearing a wooden heel to his shoe, from which he daily plained off a shaving.

Dessault, and Dr. Monroe, have given ingenious methods for treating this accident. See *S. Cooper's Surgical Dictionary*.

ACIDS.

ACID, ACETOUS. *Acetum, Vinegar.* Refrigerant, antinarcotic, antiscorbutic, antiseptic, f. ʒj. to ʒiv. Externally in burns, contusions, sprains, &c. in various forms. Its vapour is inhaled in putrid sore-throat. Also used for purifying apartments of the sick. *Acetum Distillatum*, same. *Acetum Purificatum*, same.

ACID, ARSENIOUS. *Acidum Arseniosum.* Powerfully tonic in chronic rheumatism, typhus, intermittents, &c. Also used internally and externally in cancer, obstinate

eruptions, warts, &c. Contra-indicated in phlegmonous affections, and when pyalism is produced, dose gr. 1-16 to $\frac{1}{4}$, gradually increased. *Pilulæ Arsenici*. These pills contain 1-16 gr. in each. *Liquor Potassæ Arsenitis*, same, ℥v. to xv. *Ceratum Arsenici*, for warts, &c.

ACID, BENZOIC. *Acidum Benzoicum*. Stimulant and pectoral. ℥ss. to 3ss.

ACID, CARBONIC. *Acidum Carbonicum*. In the form of gas, this acid is a powerful antiseptic either internally, when diffused in water or other fluids, or externally, to foul or scorbutic ulcers, in the form of cataplasm.

Aqua Acidi Carbonici. For internal use, f. 3 iv. to x.

ACID, CITRIC. *Acidum Citricum*. Refrigerant, antiscorbutic. 3j. to 3xvj. fluid ounces of water is adequate to lemon juice; and ℥j. to the same quantity of water with sugar, &c. makes a good beverage in fevers, &c.

ACID, MURIATIC. *Acidum Muriaticum*. Tonic, antiseptic. ℥x. to xx. Used also as a gargle in ulcerated sore throat, f. 3 ss to 3ij. to f. 3 vi. of water. The Gas is used for fumigating sick apartments, by pouring sulphuric acid on common salt, with subsequent ventilation.

ACID, NITRIC. *Acidum Nitricum*. Tonic, antiseptic, refrigerant, ℥x. to xx. Used also in the East Indies for the cure of chronic hepatitis. Externally applied to old ulcers, diseased bones, eruptions &c. in various forms. The gas is used for fumigating sick rooms by pouring sulphuric acid on nitre. Neither this acid, or the preceding, possess any anti-venereal powers, farther than giving tone to debilitated systems prior to, or during a course of mercury. *Unguentum Acidi Nitrosi*. This ointment is applied to indolent sores, herpetic eruptions, &c.

ACID, PRUSSIC. *Acidum Prussicum*. Hydro-cyanic acid. Sedative, ℥i. to iij. thrice daily, gradually increased. This article has lately been brought into use for pulmonic affections, but like other new articles its value has been overrated. I have found it useful in chronic, and hooping coughs. Consult Dr. Granville's work, of London, on this acid, also Dr. Magendie's, of Paris. The latter has recently been translated by Dr. Percival, of New-Haven.

ACID, SULPHURIC. *Acidum Sulphuricum*. Tonic, astringent, antiseptic, antiphlogistic, ℥ij. to v. But in putrescent hemorrhage to a much greater extent. *Acidum Sulphuricum, dilutum*, same, ℥x. to xxx. *Tinctura Acidi Sulphurici*, same, ℥xxx. to lx. Externally f. 3 ss of pure acid to 3i. of lard, useful in psora and other eruptions.

ACIDITY IN THE STOMACH AND BOWELS OF ADULTS.

This is a frequent symptom attending indigestion, and is relieved by a gentle emetic or cathartic, followed by absorbents, as lime-water, magnesia, alkalies. Afterwards tonics to restore the tone of the organ. Regularity of diet.

ACIDITY IN THE STOMACH AND BOWELS OF INFANTS.

Tormina. This often arises from too much, or improper food. It is known by sour belchings, crying and drawing up the legs towards the belly; stools green and slimy.

Treatment. An emetic, or cathartic of rhubarb and submuriate of mercury, or rhubarb and magnesia; followed with some antacid thrice a day, joined with carminatives, and opium if the pain is severe. Afterwards, a weak infusion of colombar-root or chamomile flowers may be given. Make such alteration in the food as may appear proper, and which should be perfectly free from any hard or indigestible pieces. The remedies should be continued until the stools acquire an healthy appearance. The child's feet and bowels to be kept warm.

ACONITE. *Aconitum.* The leaves. Penetrating, stimulant, sudorific, diuretic. Therefore useful in glandular swellings, nodes, anchyloses, rheumatism, &c. gr. i. to ij. gradually increased. Extractum Aconiti, same. Begin with half a grain.

ADHESIVE INFLAMMATION, is that process which causes different parts of the body to adhere or grow together, as in cases of recent wounds, &c. See *Union by the first intention.* See also *Inflammation and Granulation.*

AFTER-PAINS. These come on in some few cases immediately, but generally a few hours after delivery. They are to be relieved by giving thirty or forty drops of laudanum, regulating its repetition by the effects produced rather than by the quantity taken, as very large doses are sometimes necessary to procure relief.

ALCOHOL. Powerful and diffusible stimulus; tonic, and cordial; f. 3 ℥ to ij. Externally applied to burns and local inflammation, also to the surface of the body in fevers, exposing it freely to the air, to carry off morbid heat by evaporation. *Alcohol Dilutum*, same, but less powerful.

ALKALIES. These are three; 1. Soda. 2. Potass. 3. Ammonia. Which see.

ALMOND. *Amygdala.* Oleum Amygdalæ, demulcent, pectoral, f. 3 i. to 3 ij. Laxative, f. 3 i. to 3 iv. Externally emollient. *Misturæ Amygdalæ*, demulcent, pectoral, f. 3 i. to iv.

ALOES. *Aloe.* (1. *Al. eSocotrina.* 2. *A. Barbadosensis.*) The extract cathartic, anthelmintic, emmenagogue. gr. v.

to xx. *Pilulæ Aloeticæ*, same, gr. xv. to xxx. *P. Aloes et Colocynthis*, cathartic, (*Pilulæ Cochliæ*) gr. v. to x. *P. Aloes et Myrrhæ*, laxative, alterative, (*Pilulæ Rufi*) gr. v. to x. *P. Aloes cum Myrrhæ et guaiaco*, alterative. i. to iii. daily.

Pulvis Aloes cum canella, cathartic, gr. x. to xxx. *Tinctura Aloes*, f. 3 i. to ij. *Tinct. Aloes et Myrrhæ*, tonic, laxative, (*Elixir Proprietatis*) f. 3 ij. to iv. twice a day. *Vinum Aloes*, cathartic, f. 3 i. to ij. In small doses all these preparations are alterative.

ALTERATIVES. Mercurials, antimonials. hemlock, mezereon, guaiacum, sarsaparilla, sulphur, or any medicine operating gradually to improve the general health, by the secretions or otherwise.

ALUM. *Alumen*. (Super-sulphas aluminæ et potassæ.) Astringent, particularly in uterine discharges, gr. v. to xx. *Alumen Exsiccatum*, escharotic, astringent, gr. x. to xxx. also internally in colic, in doses of ʒi.

ALUM ROOT, *Heuchera*. Astringent, gr. x. to xxx.

ALVINE CONCRETIONS. There are several cases upon record, where these masses have been extracted from the rectum or vomited from the stomach, of a very large size, and thus relieving a variety of unpleasant symptoms. In others, it is probable, they produce a permanent obstruction higher up in the intestines, and ultimately death; the cause of which may frequently be unknown. In all those concretions which have been examined, a plum, or cherry stone, or the like, has been found to form the nucleus. Hence, the necessity of avoiding the careless practice of swallowing those indigestible substances. They produce such symptoms as severe pains in the stomach and bowels; diarrhoea; vomiting of blood; tenesmus; discharge of mucus from the rectum; emaciation; cardialgia, &c. Their existence in the rectum can only be known by positive examination, and when found should be extracted with lithotomy forceps. Mild purges, nutritious diet, &c. are proper. After their removal, the tone of the system to be repaired by tonics, change of air, &c. See C. White's *Cases of Surgery*. Hey's *Practical Observations*, &c.

AMAUROSIS. See *Eye*.

AMENORRHOEA. See **MENSES, RETENTION OF.**

AMBER. *Succinum*. *Oleum Surciui*, stimulant, anti-hysterical, promotes the fluid secretions, ℥ x. to xv.

Oleum Succini Oxidatum. (Artificial musk.) Properties and doses similar to the real musk.

AMMONIACUM. Gum resin. Expectorant, stimulant, aperient, gr. x. to ʒ ʒss. *Mistura Ammoniaci*, same,

f. $\frac{3}{4}$ ss. to f. $\frac{3}{4}$ i. *Mistura Ammoniaci et Antimonii*, (white mixture.) f. $\frac{3}{4}$ ss. to i. *Emplastrum Ammoniaci*, resolvent, to indolent swellings, &c.

AMMONIA. *Alcohol Ammoniatum*, cephalic. *Ammoniae Acetas Liquidus*, (Spirit of Mindererus) sudorific, diuretic, f. $\frac{3}{4}$ iij. to iv. *Aqua Ammoniae*, powerful stimulant, ℞. to xx. Externally to eyes and nostrils in hysteria and syncope; also with oils as a rubefacient. *Ammoniae Carbonas*, stimulant, gr. v. to xv. *Aqua Ammoniae Carbonatis*, same as Aq. Ammon. but in a less degree. *Ammoniae Hydro-sulphuretum*, (hepatised ammonia,) sedative, ℞. v. to xv. thrice a day, in diabetes. *Linimentum Ammoniae*, applied externally in sore throats and rheumatism as a stimulant and rubefacient. *Linimentum Ammoniae et Antimonii tartarizati*. This is rendered more active than the preceding by the antimony, which has the power of bringing forth a crop of pustules. It is much used in cases of white swelling, hip disease, &c. *Tinctura Ammoniata Aromatica*, this is the ammoniated alcohol, rendered more agreeable by the addition of aromatics; stimulant, cordial, &c. ℞. x. to xxx. *Ammoniae Murias*, (Sal ammoniac.) In solution conjoined with vinegar, repellent, sedative, and subsequently discutient by the stimulus of its salt.

ANASARCA, See DROPSY.

ANCHYLOSIS, See JOINTS.

ANEURISM. This is a pulsating tumor caused by a preternatural dilatation, or the rupture of an artery. Aneurism is divided into two kinds. 1st. *true*, or simple dilatation of an artery. 2nd. *spurious*, or *false*, when the artery is ruptured and blood escapes into the surrounding cellular membrane which becomes its sac. These are both subdivided into two kinds. 1st. *circumscribed*, when the tumor has a definite border. 2nd. *diffused*, when the tumor has no border, but is gradually lost in the adjacent parts. The *mixed* kind is imaginary.

Professor Scarpa, of Pavia, is of opinion that these distinctions are erroneous, for, in all his dissections he has only discovered the spurious kind, or that produced by the actual rupture of the vessel. Hunter's and Home's experiments, which prove that aneurism does not take place without a breach of continuity of all the coats of the vessel, favour Scarpa's assertion.

“In cases of *true* aneurism, the coats of the diseased artery are found in a thickened, cartilaginous, and often ossified state. The vessel is either dilated at the whole of its circumference, or only on one side: the latter case sometimes happens, when the artery is near a bone, which

impedes the expansion on the other side of the vessel.”
S. Cooper, First Lines of Surgery.

Symptoms. A small throbbing tumor in the vicinity of an artery, which vanishes upon pressure, or if the vessel above be compressed, returning when the pressure is removed. It is free from pain, and the skin is of its natural colour. The tumor continues to enlarge until it attains a considerable size, but as it increases, its pulsation becomes weaker, and is nearly lost when it has acquired much magnitude, owing to the coats losing their elasticity or to a coagulum forming over the interior of the sac. As the tumor grows, too, the blood flows weakly into the vessel below, insomuch that pulsation is hardly perceptible. There is also a diminution of heat from the same cause. However, in a majority of cases, this is only temporary, for the anastomosing vessels now enlarge, and transmit the necessary supply. The pressure made by tumor upon the veins, bones, &c. produce œdema, and sometimes caries. At length the skin becomes tense, elevated, thin, soft, and of a dark purple colour, followed by the formation of a slough, which, at last is thrown off and a hemorrhage ensues which is sometimes fatal in a few seconds. In other cases, there may be a repetition of bleedings. Large aneurisms being sometimes without pulsation, have been mistaken for abscesses, and opened with a lancet; but the timely application of adhesive plaster and bandage prevents a fatal hemorrhage for the present.

Internal Aneurisms are at first discovered by an unusual, and incessant throbbing, but as they increase in size, they protrude externally, causing by their pressure, absorption, ulceration, caries, &c. of all the parts before them, when their nature is easily seen.

Aneurisms are most frequent in large arteries, particularly the curve of the aorta. They are also frequent in the ham, where the vessel lies superficially, and liable to injury.

There is a preternatural disposition in some subjects to aneurism. Pelletan mentions a case where a man had sixty-three in different parts of his body. I saw a man in Guy's Hospital, in whom Mr. Cooper had tied the external iliac on one side, and the femoral on the other, yet still others were forming.

A *false* aneurism differs in some respects from a true. The latter readily yields to pressure, but returns immediately when the pressure is taken off, while the reverse is the case with the former; and as the blood is slowly returning into the sac, a hissing sound is often heard; its

pulsation too, is more feeble, and is sooner lost as the tumor acquires magnitude, owing to the more ready coagulation of the blood when thrown out of the vessel. For the same reason the *diffused false* aneurism has little or no pulsation, except near the opening in the artery.

The causes are external violence; injuries done arteries by fractured bones; abuse of spirituous liquors; violent passion; severe courses of mercury; violent running, lifting, or other severe exercise; or any causes which operate, either by weakening the arterial parietes, or by increasing the lateral impulse of the blood against them.

Treatment. Internal aneurisms were considered incurable until recent experience proved the contrary. The following plan was first recommended by Valsalvi, and has since been attended with great success in the hands of M. Pelletan, at the Hotel Dieu; and others. It chiefly consists in bleeding the patient largely, and repeatedly; in allowing only light broths and acid drinks for diet, and applying ice, or compresses wetted with cold lotions, to the swellings; and in enjoining the most rigid observance of silence and quietude. In this way aneurisms of the aorta and subclavian have been cured; but in such cases venesection was pushed to a great extent. See Clinique Chirurgicale, par P. J. Pelletan. In *external* aneurism, besides Valsalvi's method, the obliteration of the vessel is to be attempted by the skilful use of compression, particularly if the tumor be small, is situated over a bone, or its contents be easily made to recede by pressure. Even in diffused aneurism, which is more difficult of cure, if the sac can be emptied by pressure and the application of a tourniquet above, compression is to be tried. But it must be remembered in all cases, that, unless some speedy good effects are seen to result from it, the operation for obliterating the vessel by *tying* must be resorted to. In the application of compression, the object is to empty the sac, and bring its sides into contact with sufficient pressure to produce adhesive inflammation, thus obliterating the whole artery. In performing this operation, which may be done by means of a tourniquet, or compress and bandage, or any other contrivance, two objects must be kept in view, first, that pressure be made above the aperture in the artery, and second, that the compression be so managed as not to obstruct the other vessels of the limb.

A spontaneous cure sometimes takes place, in consequence of the artery becoming impervious by the mechanical pressure and obstruction of a large coagulum in the sac. This more particularly happens in the vicinity of some large bone. Sometimes too, a large tumor falls sud-

denly into an inflamed and gangrenous state, which extending to the artery where it communicates with the sac, renders it impervious. At length the whole tumor sloughs out, when, if the patient has strength enough, a cure follows. Though such cases are rare, it has nevertheless happened in the inguinal and other large vessels. *See Hodgson on Dis. Arteries.*

OF VENOUS ANEURISM, OR ANEURISMAL VARIX. This is produced by phlebotomy. The lancet quite transfixes the vein and enters the subjacent brachial artery. The external wound heals, but the internal, being prevented from doing so by the flow of arterial blood into the vein, the latter soon becomes dilated in the situation over the preternatural communication between the two vessels. There is also a hissing noise, caused by the rushing of blood from the artery into the vein. It is not dangerous, attains no considerable size, nor requires any operation. It is to be treated with the graduated compress and bandage. *See Wounds of Arteries.*

ANEURISM FROM ANASTAMOSIS. "This is a pulsating tumor, made up of a congeries of vessels and cellular substance, and resembles, as Mr. John Bell says, the gills of a turkey cock, or the substance of the placenta. The irritated and incessant action of the arteries fills the cells with blood, and from these cells it is re-absorbed by the veins. The size of the swelling is increased by exercise, drinking, emotions of the mind, and all causes which accelerate the circulation. It goes on increasing, when it at length breaks at different points on its surface, emitting a good deal of blood, which in females sometimes usurps the place of the menses, and in this state has often been mistaken for bleeding cancers. It is one species of the *Nævi Materni*." (*S. Cooper's Works.*)

Treatment. Mr. Bell says, that the object here, is not 'to cut into, but to cut out the tumor; that pressure and tying the vessels is useless.' Mr. Abernethy has, however, succeeded in curing it by the application of pressure. Mr. Travers was successful in one case, which pushed the ball of the eye from the orbit, by tying the carotid artery.

For the different modes of tying the different arteries, and farther information on aneurism, consult *Hunter's and Home's works; C. and J. Bell's, and Abernethy's Surgical works; Richter, Scarpa, &c.*

ANGINA PECTORIS, or Syncope Anginosa.

Symptoms. Upon exercise, especially when ascending any eminence, after a full meal, or any strong passions, a sudden violent and constrictory pain is felt across the chest, extending to the left arm, and down it, to the inser-

tion of the deltoid muscle; with a sense of stricture threatening suffocation; but which vanishes immediately upon standing still. After repeated attacks the symptoms are more violent and lasting. The pulse becomes weak and irregular, and the countenance pale; cold sweats, constant cough, and expectoration supervene; together with an incapacity to lie down; when a dreadful paroxysm puts a period to a miserable existence. This dreadful disease is supposed by some to depend on spasm, but Dr. Parry of Bath, (Eng.) believes it to be a case of syncope, attended with unusual anxiety and caused by ossification of the coronary arteries of the heart.

Treatment. During the fit, place the patient in a recumbent posture, and draw away a small quantity of blood; apply volatiles to the nose, and, if the syncope should continue, use blisters and electricity. Opium and ether may be given, and if there be repletion in the stomach, an emetic. In the interval, remove all exciting causes, bleed, and enjoin abstinence and tranquillity of mind and body, avoiding sudden or violent exertions. But the application of a small blister to the inside of each thigh, as recommended by Dr. McBride, is of singular efficacy. Nitrate of silver, arsenic, zinc, &c. are often used as tonics.

ANGINA. See CYNANCHE.

ANGUSTURA. The bark. *Cortex Angusturæ*. Tonic, astringent, stomachic, gr. x. to xxx. *Infusum Angusturæ*, same. f. ʒ i. to ij. *Tinctura Angusturæ*, same. f. ʒ i. to iiij.

ANIMATION SUSPENDED. See ASPHYXIA.

ANISE. The seeds. *Anisum*. Semina anisi, a stimulant, carminative, ad libitum. Oleum anisi, same. Mij. to x.

ANODYNES. See SEDATIVES.

ANTACIDS. Alkalies, fixed or volatile, absorbents.

ANTHELMENTICS. Articles which expel worms. Tin, mercurials, cowhage, pink root, tobacco, camphor, assafoetida, turpentine. Oils, vegetable bitters, lime water, jalap, aloes, and other purgatives.

ANTHONY'S, ST. FIRE. See ERYSIPELAS.

ANTHRAX. See BOIL.

ANTIMONY. *Antimonium*. *Pulvis antimonialis*, (James's Powder,) febrifuge, diaphoretic. gr. v to viij. *Antimonii murias*, used only as a caustic. *Antimonii oxidum vitrificatum*, alterative. gr. ½ to i. *Antimonii oxidum vitrificatum cum Cera*, formerly much used in dysenteries, but often produces vomiting and purging. gr. ij. to xx. *Antimonii Sulphuretum præcipitatum*, diaphoretic. gr. j. to iv. *Antimonii Sulphuretum præparatum*, al-

terative, gr. v. to xx. *Antimonium tartarizatum*, (tartar emetic,) diaphoretic febrifuge, gr. $\frac{1}{4}$ to i. ; emetic, gr. i to vi. *Vinum antimonii tartarizati*, diaphoretic, ℥ xv. to xxx ; emetic, f. 3 i. to f. 3 i.

ANTIPHLOGISTICS. Venesection, purges, diuretics, diaphoretics, diluents, warm bath, acids, cool air, tranquillity of body and mind.

ANTIPHLOGISTIC REGIMEN. This is a plan of diet which tends to diminish inflammation, or reduce the system by diminishing the activity of vital power. It is applicable in all cases of active inflammation and fevers. It consists of gruel, barley water, acids, tepid drinks, &c. &c. ; avoiding every kind of stimulus.

ANTISCORBUTICS. Antiseptics, as the vegetable and mineral acids, fresh fruits and vegetables, astringents, fermented liquors, nitre, oxygen, &c. and all other articles exhibited for the prevention or cure of scurvy.

ANTISEPTICS. Articles which resist putrefaction. Besides those in the last article, we may add wine, carbonic acid, cinchona, angustura, and tonic bitters, lime-water, camphor, myrrh, opium, &c.

ANTISPASMODICS. *Stimulating.* Ether, alcohol, wine, musk, assafoetida, carminatives, aromatics. *Sedative.* Opium, warm bath, camphor, hyosciams. *Tonic.* Cinchona, cold bath, and other remedies, tending to relieve spasmodic diseases.

ANTRUM, DISEASES OF.

INFLAMMATION and SUPPURATION. The first symptoms are rather ambiguous, such as pain in the side of the face, without external swelling or tenderness ; and is often supposed to be merely tooth ache. There is too, sometimes, a discharge of pus from the nostril, when the communication between it and the antrum is not obstructed ; but even then, it is not always observed by the patient. But as the disease advances, it becomes more obvious. The antrum now expands, and its parietes are rendered thin by absorption ; the swelling externally is often so great as to obstruct the nostril and appear visibly on the cheek ; the floor of the orbit may be so much elevated as to push the eye from its situation. At last the matter makes its way through the bony parietes of the antrum by ulcerated openings ; or through the sockets of the teeth ; but in some instances more remotely, far instance behind the ear. The usual causes are caries of the upper grinding teeth ; an obstruction of the opening leading from the antrum to the nose, by which its natural secretion is retained ; also all the general causes of local inflammation.

Treatment. The indications are, to procure a free exit for the matter; to check the farther progress of suppuration; and to promote removal of exfoliations. This is done by extracting the third, or fourth molar tooth, particularly if diseased, and then making an opening with a perforator, from the socket into the antrum; which will in some instances be found easy, as the membrane, lining the cavity, is the only intervening substance. After the matter is evacuated, a poultice is to be applied to the cheek, and astringent injections thrown into the cavity daily. In some cases the molar teeth may have been lost, and their cavities filled up, with bony matter; in these and other cases, Desault practised the following plan. After detaching the inside of the cheek from the bone and exposing the surface of the latter, he drilled a hole with the perforator into the sinus at the lower part of the fossa canini. The aperture was then enlarged with a blunt perforator, and the corresponding part of the gum cut away and a dosil of lint put into the opening. A poultice was then applied to the face, and the antrum frequently injected with some mild astringent; taking care that the opening did not close too soon. This operation was thought preferable, from the bone at this part being quite thin, and the opening less remote from the mouth. Where there exists caries, the surgeon must extract such portions as are loose, and open such sinusses as appear necessary.

FUNGUSES of the Antrum. A more formidable affection of the antrum, is the growth of fungous tumors, polypi, &c. These thrust out the teeth, distort the features, and force themselves to the surface by destroying all before it. As soon as its nature is ascertained the antrum is to be trephined, and the opening as much enlarged as may be necessary to extirpate the whole of the morbid substance, and then apply caustic to its roots. The great Desault's practice, was here very bold. In some cases he actually cut away the anterior part of the antrum with a mallet and chisel, in order to remove the pressure and apply the actual cautery.

EXOSTOSIS from the Antrum. In this case the external swelling is very hard and firm, and frequently depends upon a syphilitic taint. In such cases the proper treatment for this disease must be resorted to. In default of this, the experienced surgeon must exercise his best judgment in cutting away the morbid mass.

There are cases upon record where insects have been extracted from the antrum. Gunshot and other wounds often injure this cavity; the treatment of such must be upon general principles. Consult *Desault's Parisian Chirurgical*

Journal. Natural History of Human Teeth, by J. Hunter. Gooch's Chirurgical works. Fox on Teeth, &c.

ANUS, FISTULA OF. *Fistula in Ano.* This disease, though its name is frequently applied to all abscesses in the vicinity of the rectum, is properly only of three kinds. 1st. When the matter is at the side of the gut with an opening near the verge of the anus, without any communication with the rectum, called *blind external fistula*. 2. When the sinus at the side of the gut communicates with it by means of an aperture through its substance, called *blind internal fistula*. 3. When these two are combined, called *complete fistula*. The first and last are most frequent.

Treatment. It is first necessary to explore the nature and extent of the sinus with a probe. Many will be found to be nothing more than common fistulous openings having no connection with the rectum. These it is only necessary to lay open and treat in the usual manner of fistula. But in the true fistula, it is necessary to resort to the proper operation as follows :

The surgeon is to introduce the forefinger of his left hand into the rectum ; a probe pointed bistoury is then to be passed up the sinus (upon a director if that can be done) till it meets the finger in the gut ; if it be a case of the first kind, an opening is to be made into it, thus making it a complete, or case of the third kind. The bistoury, fixed firm upon the forefinger, is to be brought out with it, thus dividing the rectum laterally, and opening the sinus and it, into one cavity. If it be a case of the second kind, an external opening is to be made in order to render it a complete case, when the operation is to be performed as above. The dressing is a dossil of lint to keep the wound open, which must remain until loosened by suppuration. Afterwards mild applications, treating the patient upon general principles ; restoring the general health, when defective, by tonics, alteratives, &c. A purge or two should precede the operation. Before dismissing this subject it may be proper to state, that fistulæ are preceded by inflammation and suppuration, which, when of the phlegmonous kind require the treatment under that head. But if the inflammation be of the erysipelatous order, or of that species attending carbuncle, an early and free opening should be made, to prevent a more extensive affection of the cellular membrane ; supporting the health with wine and bark, as may appear necessary. By good management these abscesses may be made to heal without any fistula occurring. As these fistulæ are often depending upon disease of the liver, lungs, and other viscera ; such

diseases should always be removed, prior to the operation. Consult Pott on this subject. *B. Bell's and Latta's Surg.*

ANUS, ARTIFICIAL. This loathsome malady is the consequence of a wound in the abdomen and intestine also. The intestine may be partially or wholly divided. In the latter case, the lower portion may be lost in the abdomen, when the only chance of saving the patient's life, is to bring the upper portion to the external opening, and there suffer it to adhere, so that the feces may find their exit there, instead of being extravasated into the abdomen. But when a portion of the gut is lost in consequence of mortification in strangulated hernia, or otherwise, both portions of the gut may be adhering to the external wound. M. Dupuytren of Paris has succeeded in curing some of these latter affections.

ANUS, IMPERFORATE. Of this case there are three kinds. 1st. When the anus is closed by a thin membrane, or its orifice is too small to allow the feces to pass. It is to be relieved by a crucial incision through the membrane, or by dilating the orifice with a bistoury, keeping it dilated, mechanically, until cicatrization has taken place. 2. In this case the anus is perfect, but the meconium does not pass. Upon introducing a probe or the finger into the rectum, it will be found to terminate in a *cul-de-sac*. This is to be relieved by perforating it with a bent trochar and cannula. 3. In this species there is no vestige of an anus to be found. In such cases some attempt to find the rectum by making deep incisions near its proper situation. Others have proposed to cut into the colon above the left groin, and to establish an artificial anus; but these cases are mostly fatal. The rectum, too, sometimes terminates in the bladder, urethra, or vagina, and from the dilatability of those parts in the female, the feces may pass; but in the male they are fatal. See *S. Cooper's Surg. Dict.*

ANUS, FALLING OF. *Prolapsus Ani.* There are three varieties of this disease. 1st. the whole rectum and tunics fall down. 2. The inner coat only descends. 3. The upper portion of the gut descends into the lower, forming a *volvulus* or *intussusceptio*. It is caused by *tenesmus*, costiveness, straining, &c.

Treatment. The protruded part is to be returned immediately with the finger, or gentle pressure with a warm cloth. If it has been long down, attended with pain and inflammation, and cannot be reduced, apply leeches, cold lotions, &c. Then place the patient on his hands and knees, and attempt the reduction by returning it by small portions at a time. The T. bandage and a compress is to be applied to retain it, and astringent injections occasion-

ally shrown into the rectum, to give the part tone and prevent a relapse. The bowels to be kept always open by mild physic or glysters, and tonics and alteratives administered if needful. In some severe cases it has been found necessary to divide the sphincter ani to effect the reduction; in others a portion of the gut has been amputated. A permanent cure can be obtained by removing the inner membrane of the gut, piecemeal, by means of a ligature. *S. Cooper's Surgical Works.*

AORTA, DISEASES OF. *Aneurisms* of this vessel have been already treated of. *Wounds* of the aorta are not always attended with immediate fatal consequences. Mr. Pelletan records a case where a young man had his aorta penetrated with a small sword in a duel, who lived two months after the accident. (*See his Clinical Surgery, Book I. p. 92 and 94.*) Numerous cases are upon record, proving, that the circulation may be carried on by anastomosis when this large vessel is partially or even wholly obliterated. Thus it has been found thickened and consequently constricted just below its arch, and yet the parts below appear duly supplied with blood. (*See Memoirs of the Royal Academy of Berlin 1750, also Obs. 17 and 18.*) A total obliteration of the aorta just beneath its curve, was seen in the body of a woman by M. Paris. While she lived, the blood from the heart was transmitted into the aorta below the obliteration by passing through the subclavian, axillary, and cervical arteries into the mammary, intercostal, diaphragmatic, and epigastric arteries; and from the latter arteries, the blood passed into the vessels of the viscera and lower extremities. *See Desault's Jour. tom. 2, p. 107.* This remarkable case, as Mr. S. Cooper justly observes, is enough to make us more confident of success when tying large vessels in surgical operations. I have seen Mr. A. Cooper tie the aorta of a dog, when, on being killed a few weeks afterwards, it exhibited a complete reparation of the injury, by numerous anastomosing vessels conveying blood from the part above the obstruction, to that below. Steatomatous tumors have also been found within the aorta, nearly obstructing its canal, but without diminishing the appearance of health and strength. (*See Dissert. de Steutomatibus Aortæ.*)

APHTHA. See **THRUSH.**

APOPLEXY. *Apoplexia.* This disease consists of two species. 1st. Sanguineous. 2d. Serous.

Symptoms of the first. Sudden abolition of all the vital powers of sense and motion, accompanied by a noisy or stertorons breathing; flushed or livid countenance; pupils dilated; frothing at the mouth; grinding the

teeth ; loss of power of the sphincter muscles : but the circulation continues unimpaired. The attack is sometimes preceded by giddiness, head ache, defect of vision, loss of memory, &c. It either terminates in paralysis, or goes off by profuse purging, vomiting, or sweating. It occurs from the 50th to the 60th year, particularly in persons labouring under great obesity, suppressed evacuations, or having a short thick neck and large head ; also to those who live freely, or study hard. It is immediately produced by violent exercise, or passions, intense heat, or any kind of excesses. The proximate cause is mostly, extravasation, or turgescence of the vessels of the brain. The senses and respiration but little impeded, spontaneous hemorrhage from the nose or elsewhere, and diarrhœa are favourable symptoms ; but when the disease is protracted beyond the third day, with much fever, dribbling of the saliva, difficulty of deglutition, cold extremities, and clammy sweats, an unfavourable result may be expected.

Treatment. Bleeding, particularly from the jugulars ; cupping glasses applied to the neck ; blisters to the back and extremities, sinapisms to the feet, glysters and purging. Give sudorifics and adopt the antiphlogistic regimen. If the attack be preceded by a full meal, an emetic will be proper. In all cases every thing must be removed from the neck, the patient exposed to a free cool air, and the body kept in an erect posture. Afterwards further bleeding may be necessary if the pulse is still full ; or diffusive stimulants, should symptoms approximate to paralysis. After the recovery all exciting causes must be carefully avoided.

Of the 2d species. The attack in this kind is more gradual. It is preceded by languor, debility, disposition to sleep, and often partial loss of sense. In the fit the pulse is weak, the face pale, together with a diminution of natural heat. It occurs particularly in leucophlegmatic habits ; and is induced by all debilitating causes ; such as melancholy, and other depressing passions, intense study, poor diet, &c. Its immediate cause is a serous effusion upon the brain.

Treatment. The indications are 1. to unload the stomach and bowels ; by emetics, glysters, and purgatives. 2. To counteract the excitement in the brain, by blisters and sinapisms. 3. To restore the balance of heat and circulation by diffusive stimulants, as carbonate of ammonia, castor, musk ; by the use of electricity, frictions, errhines, and a generous diet.

APPETITE, CANINE. *Bulimia.* In this disease there is an insatiable and perpetual desire to eat, which if not indulged in, is apt to produce fainting. The urine

and feces are not much encreased ; but there is an immense exhalation from the skin, through which, no doubt passes the recrementitious part of the aliment. It is supposed to depend on acidity of the stomach, or a morbid sensibility of its nervous coat. By others it is supposed to be a case of monstrosity.

It has been attempted to be cured by giving oils, fats, opium, tobacco, lard, boiled eggs, and even pounded shells. But if this disease depends on a superabundant, or morbid secretion of the gastric fluid, the exhibition of occasional emetics and purges ; of bismuth, and tonic bitters ; the application of blisters to the stomach ; the restricting the patient to a moderate nutritious diet, as in cases of dyspepsia, would, probably, be a more rational mode of treating this disgusting disorder. Worms sometimes produce a partial state of this disease. Anthelmintics will then, of course, be proper.

APPETITE, LOSS OF. *Anorexia.* This is mostly symptomatic of dyspepsia, or some other disease, which must of course claim primary attention. But if it be idiopathic, an emetic in the evening with a purgative in the morning, followed by tonic bitters and aromatics, together with a diet of eggs, jellies, arrow root, wine, good air, exercise, &c. will seldom fail to give speedy relief.

AROMATICS. Cinnamon, cloves, angelica, cascarrilla.

ARTHRITIS. See **GOUT.**

ARROW ROOT. *Maranta.* This a highly nutritious article of food, and is particularly adapted for those whose powers of digestion are weak. It is to be made in the same manner, and consistence, as starch ; wine, sugar, and nutmeg being added at pleasure, and eaten occasionally.

ARSENIC. See **ACID ARSENIOUS.**

ASCITES. See **DROPSY.**

ASPHYXIA

Is that state of the body, when the head and arteries have ceased to act. It may arise from several causes.

1. **SUBMERSION.** In consequence of drowning, suffocation and strangulation, a considerable check is given to the vital principle without wholly extinguishing it.

It has been supposed, that persons who have been reduced to this state from being under water, must have their lungs filled with this fluid, hence the practice of rolling them on barrels, holding up by the heels, &c. But, upon dissecting those who have actually died from this cause, little or no water has been found in the lungs, nor indeed

but a very small quantity in the stomach. Upon drowning kittens or puppies in ink or other coloured fluid, and afterwards examining them, we find none of the fluid to have got access through the trachea; indeed the high sensibility of the part, renders it difficult for any thing but air to get access to the trachea, witness the violent irritation produced when our food accidentally touches it. The appearances, upon dissection, are a highly turgid state of the venous portion of the heart, while the arterial side is quite empty; the muscles of the body perfectly white, as much so, as if the patient had been bled to death; the lungs in a collapsed state. Where death has been produced by suffocation or strangulation, the same appearances are to be observed; besides a great deal of congestion in the brain.

Treatment. Convey the body carefully, and speedily, to the nearest house, and wipe it dry; remove all froth or mucus from the mouth and nostrils. If it be in warm weather, place the body near a window; if in cold, near the fire, with the head and shoulders somewhat elevated, covering it with blankets. Exclude all persons from the room except six, some of whom should be employed in restoring heat to the body, by the application of warm cloths, bladders of hot water, bags of heated sand, &c. to the stomach, feet, thighs, and axilla; while the others should be attempting artificial respiration with the proper apparatus. If the proper apparatus be not at hand, use a pair of common bellows in the following manner:—Close the nostrils and mouth, except a small aperture sufficient to admit the bellows, then let one of the party press on the thyroid cartilage in order to prevent the air from passing down the œsophagus, which is an important point. Then inflate until the chest is seen to rise, when the fingers are to be taken off the mouth and nostrils, and the air pressed out in imitation of natural breathing. If any unexpected impediment should arise to the inflation of the lungs, it will be proper to perform the operation of bronchotomy, and inflate through the aperture. This process to be frequently repeated. Another of the party should occasionally rub his hands up the legs, thighs, and arms of the sufferer, with a view of forcing on the congested blood into the arterial system, and which can be best done while the lungs are in a state of expansion. The mouth and nostrils may be occasionally tickled with a feather, and stimulating injections thrown into the rectum. As soon as the patient can swallow, some warm cordial should from time to time be poured into the stomach. All violence, as jolting, shaking, &c. should be studiously avoided, as there is great danger of rupturing the vessels near

the heart from their gorged state. If these means be not successful in an hour, a few shocks of electricity may be sent through the chest, particularly when the lungs are inflated. The warm bath is also a serviceable remedy. That of bleeding doubtful. The practice of blowing, from our own lungs, respired air into that of the patient cannot be too much reprehended. The remedies should be persevered in for four, six, or even ten hours.

2. **SUSPENSION BY THE CORD.** All the above means are proper, together with opening one, or both jugulars, to relieve the congestion of the brain. It may however be proper to remark, that, although some degree of congestion in the brain in these cases does exist, so as to render the abstraction of blood from the jugulars proper, that death is invariably produced by suffocation, and not by apoplexy as formerly supposed. This was proved, some years ago, at Edinburgh, by hanging a dog for an hour with an aperture cut in the trachea, through which a tube was placed to admit air to the animal's lungs. On taking him down, he was found to have suffered little or nothing by the suspension, but on hanging him again, with the cord placed below the aperture, he died in a few minutes. Tobacco fumes in this, and all other species of asphyxia, are decidedly objectionable.

3. **THE FUMES OF BURNING CHARCOAL ; EFFLUVIA FROM MINES ; LIMEKILNS ; FERMENTED LIQUORS ; AND EXHALATIONS FROM PRIVIES, AND COMMON SEWERS.** The appearances of persons, suffering from these causes, are :--- The head, face, and neck, swoln ; the eyes propelled from their sockets ; the tongue protruded on one side of the mouth ; the jaws firmly closed ; the face and lips livid ; the abdomen inflated ; the person insensible, and apparently in a sound sleep.

Treatment. Let the body be freely exposed to a cool air, in a leaning posture upon a chair ; the face sprinkled with vinegar, and the pit of the stomach with cold water. The legs, and possibly the whole body, may be, with advantage, put into a cold bath. Frictions to the hands, feet, and spine ; volatiles to the nostrils, and clysters of vinegar and water. If this practice is likely to be successful, it will be manifested by foaming at the mouth, and a general shivering of the whole body. If it fails, we are shortly to apply bladders of warm water to the soles of the feet, wrap the body in blankets, inflate the lungs, let blood, and send shocks of electricity or galvanism through the chest. When able to breathe, the patient may inhale oxygen gas, and drink acidulated liquids. In asphyxia from *want of respirable air*, from whatever cause, the same treatment will be applicable.

4. **FROM COLD.** In this case the patient suffers a general numbness, and a sort of intoxication; he quickly falls asleep, and becomes insensible, and without assistance, perishes.

Treatment. Remove the body to a convenient place. Rub it gently with snow, or bathe it with cold water, taking care to increase the heat of the body very gradually. Inflate the lungs, &c. as in other cases. Emetics in all cases of asphyxia are improper.

5. **IN NEW-BORN INFANTS.** This may arise from three causes. 1. Weakness of the vital functions, when it will not be proper to cut the naval-string or separate the placenta, but to stimulate the nostrils with volatiles, inflate the lungs, employ frictions, warm bath, and electricity. 2. From the mouth and throat being filled with the liquor amnii, or a glairy fluid, which must be carefully washed out, and the above remedies used here also. 3. From congestion of blood in the brain, by the cord being compressed in footling cases, or entangled around the child's neck, or from the pressure the head has suffered from the use of instruments, or from the pressure of the pelvis in hard labour. Here it will be proper to cut the cord, and allow it to bleed a few minutes and then to proceed as in other cases. But, without the prompt assistance of the physician, in all these cases, the child is in imminent danger of being lost. Hence the necessity of caution in giving an opinion when mothers are accused of murdering their offspring. (See Dr. Curry's Treatise on Drowned Persons, Reports of Royal Humane Society, Orfila on Poisons, &c.)

ASSAFŒTIDA. *Assafœtida.* The gum-resin. Stimulant, antispasmodic, emmenagogue, very useful in hysteria, flatulence, &c. gr. v. to ʒ i. *Pilula Assafœtidæ,* same. gr. x. to xx. *P. Assafœtid. Compositæ.* same gr. v. to xx. *Tinctura Assafœtidæ,* same f. ʒ i to ij.

ASTHMA. This is a spasmodic affection of the lungs, which comes on by paroxysms particularly towards night; attended with a wheezing, difficult respiration, and cough, increased upon lying down.

Symptoms. The attack is preceded by disinclination to motion, loss of appetite, oppression, flatulence, and eructations. The cheeks become red as the paroxysm increases, the eyes prominent, and a sense of suffocation so great, that the patient can only breathe in an erect posture. If he happens to sleep, he snores violently, is desirous of a cool free air, sweats about the neck and forehead, and coughs up, with difficulty, a little frothy matter. There is no fever, the pulse is small and weak, urine pale and copious.

At length the fit abates with an expectoration of mucus, and a deposit of sediment in the urine. This is the usual progress of the attack, which has generally a remission in the morning, and an exacerbation in the evening for several days, when the patient is entirely relieved until a fresh paroxysm occurs. After a great length of time, and numerous attacks, he becomes affected with hydrothorax, anasarca, paralysis, &c. which puts a period to his sufferings. It is caused by cold, moist atmosphere, hereditary disposition, intense study, noxious fumes, &c. &c. Inhaling a small quantity of powder of ipecacuanha or jalap will produce a paroxysm. Its proximate cause, according to Dr. Cullen, is spasm;---to Dr. Bree, the presence of some irritating particles, dust, effused serum, &c. It is, generally, not dangerous until the patient is advanced in life, and the repetitions of paroxysms have produced dropsy, paralysis, palpitation, syncope, &c. *Diagnosis.* The wheezing, difficulty in breathing, coming on in distinct paroxysms at night, unattended with fever, will distinguish the asthma from all other diseases.

Treatment. The indications are, 1. To moderate the violence of the paroxysm. 2. To prevent its recurrence. The 1st is fulfilled by venesection (if recent, in a plethoric habit, and free expectoration has not commenced); by purges, diaphoretics, blisters, and antispasmodics of ether, opium, &c.; by squills, gum ammoniacum, antimony, pedeluvium; by smoking stramonium, and drinking strong coffee. If brought on by retrocedent gout, its return to the extremities is to be solicited by the administration of cordials and stimulants, and the use of pedeluvium and sinapisms to the feet. If from repelled eruptions, the warm bath, blisters, and sudorifics. If by suppression of long-accustomed discharges, these must be quickly reopened. If attended by repletion, flatulence, or other disorders of the stomach, emetics, tonics, carminatives, &c. will be proper.

The 2d indication is fulfilled by avoiding all exciting causes; by the use of issues and blisters; by gentle aperients, emetics, expectorants, tonics, oxygen gas, light nutritive diet, warm clothing, exercise, removing to a warm climate; but above all, a healthy condition of the digestive functions must be preserved. Consult Drs. Cullen, Bree, and Darwin, on this disease.

ASTRINGENTS. Such articles as are supposed to possess the power of contracting muscular fibres. Lead, copper, alum, iron, zinc, opium, logwood, oak galls and bark, cinnamon, catechu, kino, lime. Externally the

same, besides vinegar, cold water, muriate of ammonia, &c.

ATROPHY. *Atrophia.* This disease is characterized by a general wasting of the body, without fever, cough, or difficulty of breathing; but attended with indigestion, lowness of spirits, languor, and debility, often terminating in dropsy. In advanced cases, attended with heat, thirst, dryness of the skin, and flushed countenance.

Treatment. The digestive organs to be put into a proper condition, by the employment of emetics, purgatives, and alteratives; by tonics, as barks, the vegetable bitters, warm cloathing, cold sea-bathing, good air and exercise; by nourishing food, as jellies, arrow-root, eggs, wine, porter, &c. Its causes must be investigated, and if found to be worms, give anthelmintics; if sensual excesses, these must be restrained; if giving suck, (*atrophia lactantium*,) it must be discontinued; if poor living or bad air, these must be changed; if a scrophulous habit, or venereal taint, the proper remedies for such diseases.

ATROPHIA ABLACTATORUM, (*weaning brash.*) This disease occurs in children who have been weaned too early, or brought up by hand. It is known by griping, purging, vomiting, the stools of a green or ash colour, or slimy. To these symptoms succeed those of atrophy, which, with convulsions, often prove fatal.

Treatment. An immediate return to the mother's breast if possible; if not, the food must consist entirely of jellies, arrow root, isinglass, with a beverage of wine whey; avoiding acids, and indigestive food. Add to these, frictions, pure air, exercise, tepid and cold bathing, with occasional doses of rhubarb, and sub-muriate of mercury; aromatics and absorbents to remove acidity, and opium to relieve pain.

BARK, PERUVIAN. See CINCHONA.

BARLEY. *Hordeum.* *Decoctum Hordeum.* *Decoct. Hord. Compositum.* These are agreeable, diuretic drinks in fevers, and inflammatory cases.

BARBIERS. A species of palsy, to which the East-Indians are liable during the rainy season.

BARYTA, MURIATE OF. *Liquor Barytæ Muriatis.* Stimulant, diaphoretic, diuretic. Useful in scrophula and other obstinate cutaneous affections, ℞v. to xx. Also externally, escharotic to fungous ulcers, specks on the cornea, &c.

BEARING DOWN. See ANUS, VAGINA, and UTERUS.

BEARS-FOOT. The leaves. *Helleborus fœtidus.* Anthelmintic, gr. vj. to xj. of the dried leaves.

BENZOIN. The balsam. *Benzoinum*. Pectoral, gr. x. to xx. *Acidum Benzoicum*, the same, gr. x. to xx.

BILIARY CALCULI. See JAUNDICE.

BISMUTH. *Bismuthum*. *Bismuthi Subnitras*. Tonic, in pyrosis, dyspepsia, &c. gr. iij. thrice a day, gradually increased.

BITTER SWEET. *Dulcamara*. The stalks. Diaphoretic, diuretic. gr. x. to xx. Decoctum dulcamaræ. f. 3 i. to ij.

BLADDER INFLAMED. See INFLAMMATION of the Bladder.

BLADDER, INSECTS DISCHARGED FROM. There are several cases of this kind upon record, one particularly by Mr. W. Lawrence, in *Med Chirurg. Trans.* vol. 2. p. 382. Mr. Warner has related a case where a tumor was extracted from a bladder. (See *his Cases of Surgery*.)

BLADDER, Deficiency of. This is not a very uncommon deviation of nature from perfection. See 'A systematic Account of Malconformity of the Urinary Organs, by A. Duncan, jun.' in *Edinburgh Medical and Physical Journal*, vol. 1.

BLADDER, Puncture of. When, in cases of stricture, all efforts to pass the catheter prove unavailing, recourse must be had to this operation to prevent sloughing of the bladder, or urethra. Bichat however informs us, that, during ten years Desault was principal surgeon at the Hotel Dieu, he never had to puncture the bladder but in one instance. Hence it is inferred, that a vast proportion of these cases may be overcome by the skilful use of the catheter. But when it does happen, that we are not successful in the use of this instrument, by the third, or at most the fourth day, the operation must be no longer delayed. There are three situations where the puncture may be made, and yet avoid the peritoneum; viz. above the pubes, through the rectum, and through the perineum. The last is by some considered obsolete. Mr. A. Cooper, however, in his lectures, recommends it, when the surgeon feels full confidence in his anatomical knowledge; but otherwise, he advises the operation by the rectum. In performing the operation above the pubes, an incision is first to be made thro' the integuments, fat, and pyramidal muscles, upon the linea alba immediately above the symphysis. The viscus is then to be punctured with a long curved trocher, and the urine drawn off through the cannula. Some plunge in the trochar without any previous incision. The convexity of the instrument must be turned upward towards the navel. After the water is drawn off,

the mouth of the cannula is to be stopped up, and allowed to remain in the bladder, confining it with tapes or bandages. This is done to evacuate future accumulations until a free passage is established by the natural channel. As by this operation the bladder can be only partially evacuated, it is not to be chosen, unless the prostate gland is so much enlarged from disease, that it would be likely to be wounded by the rectum operation.

The fewest objections exist to the rectum operation. The patient is to be placed upon his back, with his knees drawn up towards the abdomen, similar to the position for lithotomy. A curved trocar, with its point drawn within the cannula is to be introduced with the right hand, and conveyed with the index finger of the left as high as the surgeon can reach up the intestine, in order to clear the prostate gland and vesiculæ seminales. The bladder will be plainly felt, like a large tumour pressing upon the gut. The instrument is then to be pushed into the bladder, exactly through the anterior part of the rectum. The bladder at the same time to be firmly fixed by an assistant pressing upon its anterior part just above the pubes. The convexity of the trocar must, of course, in this case, be turned towards the sacrum, so that its point may follow the axis of the pelvis. The urine being evacuated, the cannula must be stopped up, and retained in the wound with the T bandage, until the obstruction in the urethra is removed. Care must be taken, that the cannula be so secured, as to prevent the possibility of its slipping into the bladder. A cathartic glyster should be daily thrown up the rectum; the patient securing the cannula, in the best manner he can, when the feces are passing.

In females, the bladder is easily punctured through the vagina, though with them, the operation is rarely necessary, from the greater simplicity and shortness of the urethra.

Sabetier says, that, in operating through the perineum, the safest mode is to make a deep incision through the perineum, as is practised in the lateral way for lithotomy, and to desist from plunging the trocar into the bladder until the surgeon has assured himself of the situation of this viscus, and felt the fluctuation of the urine. See S. Cooper's Surg. Works; Sharp on the Operations; Parisian Chirurgical Journal, &c. &c.

BLEEDING. See WOUNDS. also HEMORRHAGE.

BLINDNESS. See EYES, DISEASES OF.

BLOOD-ROOT. *Sanguinaria*. Tinctura Sanguinariae, sudorific, ℞xxx. to lxxx.

BOIL, or FURUNCULUS, CARBUNCLE, and ANTHRAX. These three affections are of the same nature and require a similar treatment. The boil and carbuncle are situated in the cellular membrane, and appear in the form of a hard painful swelling, which go on to supuration. The disease seems to be a peculiar kind of inflammation, probably specific, which terminates in the death of the cellular membrane. The anthrax is of a like nature, but attacking, and destroying the glands in the groin and axilla. The cause in all these cases is to be referred to a bad state of health, depending probably upon a deranged state of the chylopoetic viscera. The boil is very common, and requires only a mild poultice until it breaks, when as much of the diseased cellular membrane must be extracted as can be conveniently drawn out, when it presently heals. Purges, alteratives, &c. are necessary to prevent the occurrence of other boils.

The *Carbuncle* makes more extensive ravages in the cellular membrane than the boil, and when it bursts, it does so by several pin-hole apertures, through which issues a greenish, bloody, irritating discharge. It is often attended with fever of the typhoid type. Gangrene often rapidly extends through the cellular substance. Carbuncles are sometimes very numerous over the body, and when they occur on the scalp, prove fatal, from the inflammation extending to the dura matter.

Treatment. Extensive crucial incisions should be made in each, and the separation of the sloughs promoted by the application of turpentine and oil, tincture of myrrh, &c. at the same time attending to the general health as in the preceding case. Wine, bark, &c. if necessary: It is one of the symptoms of plague.

In the southern cities of Europe, a malignant and fatal species of carbuncle appears, which is endemic and contagious. This probably is the "malignant" pustule described by Orfila.

The *Anthrax* makes its appearance in glands, to which it is as destructive as the carbuncle is to the cellular membrane. This is also a symptom attending plague. It requires the same treatment; that of laying the swelling completely open, and applying stimulants, and administering the same medicines. (See *Richerand's Nosographie Chirurgicale. Larrey's Mem. Mil. Surgery. Broomfield's Cases. Abernethy's Works; &c.*

BONES.

BONES, DISEASES OF. *Caries.* We may compare caries of a bone, to ulceration in the soft parts, in

which a breach is produced by the action of the absorbents. A bone suffering caries may be considered as falling a prey to a morbid action going on in its own substance which, if not timely arrested, will accomplish its utter destruction. It differs from necrosis, as much as ulceration differs from mortification; necrosis, being a total death of the bone, while caries is only in a state of disease. The causes of caries are for the most part internal, as scrophula; hence the reason why the spongy bones are so often subject to it, as the vertebræ, astragalus, tarsus, carpus, knee, &c. The venereal disease is another cause, and shews itself upon the bones of the nose, palate, shin-bone, &c. in the form of nodes, &c. Cancer, wen, the pressure of abscesses, and aneurisms are also causes of caries.

Symptoms of Caries, are, that on passing a probe, it will be found to penetrate easily into the substance of the bone; the bone is perforated with openings filled with fungus, which bleed upon the slightest touch; a dark coloured serum is discharged, which yields a very fetid smell, especially when exposed to the air. But a caries of a deep seated bone is not so obvious. However, when we have a fistula, from which issues a thin, fetid, dark coloured fluid, with the soft parts swoln and indurated, we may be tolerably certain that a caries is at the bottom.

Treatment. The constitutional cause, be it scrophula, Venereal or otherwise, must receive primary attention in all cases. (See those diseases respectively.) But if the cause be local, the separation of the diseased parts is to be promoted by stimulating applications, as lint, moistened with tincture of aloes, or myrrh; a solution of nitrate of silver, nitric acid diluted with water, (f. 3i. to f. ʒxvi.)

NECROSIS. This implies an absolute death of a bone, similar to mortification in soft parts. The measures which nature takes to supply the loss of a bone is most wonderful; it is no less, than a formation of an entire new bone, surrounding and incasing the old, which, when completed, is followed by a total absorption of the latter, leaving a perfect limb.

This beautiful instance of the reparative powers of nature, is performed by the periosteum, which, becoming very vascular, throws out matter which ossifies, and thus forms a new bone. Preparatory changes have sometimes been observed to be forming, even previously and in anticipation of the death of the bone. An absorption of old bone and deposit of new, soon commences, and continues until the whole work is accomplished. The new bone being form-

ed around the old, it, of course, leaves the limb larger, and more clumsy than the sound one, but it is not altered in length. After the cure, the skin is often red, smooth, and adherent to the new bone. The cylindrical bones are generally the seats of this disorder, and the time occupied for the whole process is sometimes two years.

Symptoms of Necrosis. A deep seated, excruciating pain, followed by tumefaction and abscesses along the course of the bone. These abscesses having bursted, their openings soon become fistulous; the discharge of pus is large, and of good quality. The pus issuing from within the new-formed bony shell, it cannot be made to discharge by pressure, neither can a probe be easily passed in, because the old bone or *sequestrum* fills up the cavity. It is conceived possible, however, for the whole process to take place without suppuration. The new case being fully formed, the openings entirely heal up, enclosing the sequestrum, so that it will be absorbed without being ever seen. In other cases the sequestrum makes its appearance externally through the new bone, skin, &c. and is discharged; when also the cure will be complete. When the old bone is disposed of, by either of these processes, the cavity of the new, becomes filled up with solid osseous matter, instead of being hollow as the original bone. The *causes* of necrosis may be any thing that produces inflammation, when there is a predisposition to the disease, or it may come on spontaneously. It is most common from the age of twelve to eighteen. In the lower jaw it may arise from the use of mercury, acrid substances to teeth, blows, &c. Necrosis when fatal, which is not often, is owing to the vehemence of the inflammation in the outset, or subsequent hectic from the long continued irritation during the separation of the sequestrum. In the latter case the patient can sometimes only be saved by amputation.

Treatment. We are to keep the inflammation at all times within moderate bounds, by bleeding, leeches, cold lotions, and other antiphlogistic means; and when hectic symptoms ensue, so as to endanger the patient's life, we are authorized to amputate. During the separation of the sequestrum, little is to be done if things go on well. Extensive suppurations at this stage may be prevented by leeches, &c. and keeping a blister upon the limb open with savine cerate. When the dead bone causes much irritation, and any part lies detached and superficial, we are to attempt its extraction. So too, indeed, we are justified in attempting its extraction in urgent cases, even when the sequestrum is completely encased. To effect

this, the integuments should be divided with a scalpel, the new bone laid bare, and as much of it cut away, with trephine, mallet and gouge, or Hey's saw, as the nature of the case requires for the object in view. The strength to be supported during suppuration by wine, bark, &c. (*Consult Boyer on Diseases of the Bones. Weidman de Necrosi Ossium. Francoforti 1793. Larrey's Memoirs of Mil. Surg. S. Cooper's Surg. Dict.*)

SPINA VENTOSA. This term implies an abscess in the interior of bones, more particularly the tibia. This is the meaning it appears, from Mr. S. Cooper's account, (See Surg. Dict.) originally attached to it by the Arabian writers, and not the common white swelling with which it has been by some confounded. It is a rare disease. Mr. Hey has probably given the best account of it in his "*Practical Observations in Surgery.*" It appears that the malady may be caused by a blow or other violence, fever, &c. and is more frequently seen in young and weakly persons. It begins with a dull, heavy, deep-seated pain in the centre of the limb; its external aspect being quite sound, the disorder will probably not be suspected, until the bone has become much diseased, and the periosteum thickened, resembling (Mr. Hey says) a node. At length matter accumulates under the periosteum, communicating with the interior of the bone by a small aperture. The bone becomes extensively carious.

Treatment. The abscess to be laid open, the soft parts dissected away, and, where the aperture in the bone is discovered, a trephine must be applied and carried through the lamella. This exposes the diseased cancelli, which must be also removed, either by the trephine, knives, chisels or gouges. When the whole diseased bone is entirely removed, the part is to be dressed with dry lint. The cavity will be presently filled up with good granulations, and a cure follows, often without exfoliation. The strength to be supported with bark, wine, and a proper nutriment. Amputation should only be performed for the sake of preserving life. A similar affection may take place in the diploe, in consequence of a blow on the head. It causes both tables of the bone to be absorbed, and the matter to be extravasated upon the dura mater and under the pericranium. In such cases we are to cut away the scalp, apply the trephine and remove the diseased diploe, as Mr. Hey did the cancelli. (*See Latta's Surgery.*)

EXFOLIATION. This term implies the casting off a dead portion of bone from the living. Before exfoliation can take place, the bone to be thrown off must be com-

pletely dead, either by blow, loss of periosteum, &c.

Dead bone never rots or decays, but comes away perfectly sound, except being perforated with small holes. It is separated from the living part by the action of the absorbents alone. It is not true, as formerly believed, that when a bone, or portion of bone has been denuded of its periosteum, that it inevitably dies; for if the periosteum be shortly after replaced, it will again adhere; and indeed, if the periosteum be not replaced, granulations will sometimes be produced on the surface of the bone which will cover, and freely adhere to it, and prevent exfoliation. When a bone is denuded of the soft parts, they should be carefully replaced; but if this cannot be done, the mildest dressings only should be applied. The practice of applying stimulants, caustics, canter, and the like, cannot be too much reprobated, until we know the bone to be really dead. But when this is really the case, a solution of nitric acid in water, or other stimulants, may be used with a view of exciting the action of the surrounding absorbents and hastening its separation. If the exfoliations become wedged in the adjacent parts, after being fully detached from their original connection with the bone, we may effect their total separation by making suitable incisions in the soft parts, and extracting them.

EXOSTOSIS. A bony excrescence, or tumor, growing out of some part of a bone. They may appear in the form of a thickening of a bone; thus the parietal bone of the head has been found an inch thick. But its most common form is that of a solid tumor growing from the surface of a bone, and becoming as hard as ivory. In most cases they seem to arise idiopathically, and some habits seem so disposed to their formation, that the slightest blow or injury on a bone will produce an exostosis. They sometimes become carious, but often remain stationary a long time, though at others they grow more rapidly. Little can be done for such cases by medicine, except they arise from a venereal cause. Mr. Abernethy conceiving these cases to depend upon an excess of lime in the system, administered acids, but without much benefit. Mr. S. Cooper thinks that perpetual blisters upon these swellings have not been sufficiently tried. It is quite evident, that when their growth is not rapid, and when the tumor is so situated as not to cause inconvenience, it should not be molested. But should it be deemed proper to remove them, we are carefully to dissect away the soft parts and then remove the exostosis from its base, by Hey's saws, gouge, mallet and chisel, &c. (*See Boyer's Surgery.*)

FRAGILITAS OSSIUM, and MOLLITIES OSSIUM. In the former of these diseases there is a morbid fragility or brittleness of the bones; in the latter a morbid softness, so as to admit of being readily bent in any direction. Boyer supposes in the former case, there is a deficiency of the soft, or animal matter entering into the composition of bone; in the latter, a deficiency of the earthy matter, or phosphate of lime. Both diseases are beyond the reach of medicine, but, fortunately, very rare. Old persons seem liable to a certain brittleness of the bones, which renders them liable to be fractured and difficult to unite again. A similar state of the bones is sometimes induced in advanced stages of cancer, and other diseases. A case of fragilitas ossium is related in the *London Medical Journal*, where the patient could not turn in the bed without sustaining some fracture.

The most remarkable case of Mollities Ossium upon record is that of Madame Supiot, whose thigh bones were so flexible that her feet could be laid on each side of her head; and at her death she was two feet two inches shorter than when in health. Both these cases differ from Rickets: for in that disease the bones yield and become distorted by slow degrees, without losing their natural inflexibility. (*Consult Boyer on Bones, Vol. 2. Broomfield's Chirurg. Observ. Gooche's Chirurg. Works, &c.*)

RICKETS. Rachitis. In this disease the joints are swelled; the spine becomes distorted; the tibia and other bones increased in their natural curvature to an unnatural degree, and there is a deposit of bony matter near the joints, giving rise to the term *double-jointed*. It is supposed to arise from a deficiency of lime in the bones. It mostly occurs from the ninth month to the second year.

Symptoms. Comes on slowly with flaccidity of the flesh, emaciation, paleness, with a slight degree of tumefaction of the face, deposit of lime in the urine. The head is large; and the fontanels and sutures open. The forehead soon projects to a great degree; teething is late, slow, & difficult, and the teeth soon decay; the ribs become flattened, and the sternum projects like a sharp edge, &c. vulgarly termed *chicken-breasted*; the bones soon become incapable of supporting the body; and at length the whole system is grievously deformed. The mental faculties in most cases are, both before and during the disease, very acute. The abdomen now swells, the bowels are loose, and with vast debility hectic supervenes. The patient, if he cannot soon be restored from this state, loses all the functions of the animal œconomy and perishes. **Causes;** hereditary predisposition, either from venereal

taint, or scrophulous tendency; teething, bad air, poor diet, want of cleanliness, exercise, and whatever induces much general debility. Cretinism is a high degree of rickets.

Treatment. By timely assistance. but few cases will prove fatal; and though the patients may remain throughout life with serious deformity, yet they are remarkable for possessing great strength; for many rope-dancers, jugglers, tumblers, and others, who exhibit great feats of strength, have been rickety when young. Indeed the motions of the muscles after recovery, tend very much in some cases to restore their limbs to their natural state; though the pelvis, now and then remains so distorted as to offer serious impediments to parturition.

The plan of treatment laid down for the cure of serophula in general, is particularly applicable in this case; and to this I refer the reader. If we suspect it to be complicated with a morbid state of the mesenteric glands, worms, dentition, &c. proper remedies must be administered accordingly. Phosphate of lime is given by some, with a view of supplying the supposed deficiency of that substance in the bones. The child should lie upon a hair mattress, instead of feathers. Various mechanical contrivances have been invented to restore the limbs to their natural shapes; but I believe that the best practitioners, generally, now doubt their efficacy. Certainly every thing depends on restoring the general health and vigour. Consult S. Cooper.

NODES. These are caused by inflammation of the periosteum, induced by blows, falls, abuse of mercury, venereal diseases. They begin with pain, which, in venereal cases, comes on in the evening, continues during the night, and departs in the morning; heat, swelling, &c. An adhesive fluid is poured out, into which vessels shoot and organize it. As these vessels derive their origin from the periosteum, they soon secrete bony matter, and the node or swelling becomes osseous. In the outset we are to subdue the inflammation by leeches, cold washes, &c. and if the case be venereal, the mercury must be suspended until the inflammation or suppuration has abated, when it may be resumed. Should suppuration be inevitable, we are to promote it with poultices and fomentations. Sometimes when the inflammation ends in resolution, a bad indolent tumor will remain. This is much benefitted by a perpetual blister.

BORAX. See SODA.

BRAIN, *Injuries of.* See HEAD.

BREAST, *Diseases of.* 1. **MAMMARY, OR MILK 'ABSCESS.** This happens most generally to women during the first two or three weeks after confinement.

Symptoms. Pain, redness, heat, swelling, and heaviness of the part; the secretion of milk generally, though not always suppressed; the pain extends to the axilla, and, if the symptoms, continue after the third day, suppuration commonly ensues. The enlargement is irregular, giving the appearance of one or more tumors. It is for the most part attended with sympathetic inflammatory fever. It is caused by blows, frights, repressing the secretion of milk at an early period, sore nipples, &c. Inflammation and suppuration of the breast may occur to women at other periods than parturition, and even to the male sex.

Treatment. As in cases of inflammation generally, we are to attempt to promote resolution by the use of leeches, cold lotions, saline purges, nauseating doses of tartar of antimony, and the antiphlogistic regimen. The milk to be frequently drawn out. But if suppuration appears inevitable, we are to promote it by the use of poultices and fomentations, by giving bark, wine, &c. The abscess to be allowed to break itself, or to be well formed before we open it. Indurations often remain after the disease has gone off, which commonly give way to frictions of camphorated mercurial ointment or soap plaisters, with calomel and hemlock internally. Sinusses often form, which require to be laid open with a bistoury and director. *See Sinus.* Mr. Hey describes a deep-seated abscess of the breast which is not confined to suckling women. It is slow in suppurating, the parts above hard and scirrhus. After it suppurates it forms numerous sinusses filled up with fungus; is very tedious, and produces hectic symptoms. His treatment is to trace and lay open every sinus, and if in doing this one portion of the breast is left insulated, that portion he removes entirely, and a cure follows. (*See his Surgical Cases. Also Pearson's Principles of Surgery.*)

2. *Scrophulous Tumors.* These are attended with all the characteristic marks and constitutional symptoms of scrophula, and require the same treatment. *See Scrophula.*

3. *The Irritable Tumor.* This tumor, though by no means dangerous, is often mistaken for cancer, and rashly and cruelly extirpated. It generally attacks young women who are of an excitable temperament, also young married women, from the strong sympathy between the breasts and the uterus. It goes off entirely upon giving suck. It differs from cancer in being extremely irritable, and painful on being touched; by its not being circumscribed, and by its occurring in women under twenty-five, while cancer can be handled with impunity; is always

hard, distinct, and circumscribed, and almost universally occurs at the age of forty or fifty.

Treatment. Leeches, cold washes, cooling purges, avoiding stimulants and excitants of all kinds. The part should be kept in a perspirable state, by being covered with oil skin, or soap plaster." *Lectures of Mr. A. Cooper.*

4. *Hydatid Tumor.* This is known by the numerous small swellings of which it is composed, feeling like peas and nuts, which are elastic, and fluctuating; without pain, generally, and increase slowly. The health but little affected. Its suppuration is also slow; and instead of pus, a ropy glairy fluid is discharged. Sinusses frequently form. It does not extend by absorption, nor is it malignant; but from its obstinacy, and the irritation it produces upon the constitution, ultimately, extirpation of the part is often necessary.

5. *Schirrhous, and Cancer.* See CANCER.

6. *Fungoid Tumor.* See FUNGUS HÆMATODES.

In performing the *operation* for the removal of tumors in the breast, we are to observe the rules laid down for the extirpation of tumors generally. (*See Tumors.*) It is proper however to observe, that in operating upon the breast, the pectoral muscle must be kept tense, by placing a stick across the patient's back, over which her arms are to be brought. The incision to be made in the direction of the fibres of that muscle. A single, or double incision is to be practised, as the size of the tumor may render necessary. When a double incision is practised, some advise the lower one to be made first, in order to be less incommoded with blood. Desault used to tie all vessels that bled freely before he continued his dissection. When we are operating for cancer, the skin, cellular membrane, glands in the axilla, and all parts which appear contaminated must be freely cut away. In removing the glands of the axilla, some advise us to tie their pedicles before we divide them, for, as their vessels come immediately from the thoracic arteries, the hemorrhage is apt to be profuse. The wound being united in the usual way by sticking plaster or suture, the arm is to be kept perfectly still, until the part is healed. Consult Sharp, Sabatier, B. Bell, &c. for the method of performing the operation; and for information concerning the diseases of the breast, the reader is referred to Pearson's *Principles of Surgery*. Hey's *Practical Observations*. Kirkland's *Enquiry into the present state of Medical Surgery*, &c.

BRONCHITIS. See **INFLAMMATION OF THE BRONCHIA.**

BRONCHOCELE. This is an indolent enlargement of the thyroid gland. The tumor is local, broad at its base, without pain, and gradually increases until it occupies the whole front of the neck. It is not malignant; but, when very large, causes hoarseness, difficulty in breathing, head-ache, &c. It is most common in Derbyshire in England, and in the vallies of the Alps, where it is called *Goitre*. The opinion that these swellings are produced from drinking snow water is now refuted; neither is it necessarily connected with *Cretinism*. Its most probable cause is the humidity of the atmosphere where the disease prevails. This receives proof from the fact, that women are most liable to it, who, in all countries, expose the neck to the vicissitudes of the atmosphere more than the other sex. It may, in some instances, be connected with a scrophulous habit.

Treatment. The most popular remedy is a troche composed of burnt sponge, burnt cork, or pumice stone placed under the tongue, and there suffered gradually to dissolve, thrice a day. Some give a scruple of the burnt sponge in syrup, internally, thrice a day, joined with a grain of calomel, or else a mercurial purge twice a week. Calcined shells of eggs, muriate of barytes, cicuta, belladonna, &c. have been tried. External applications of camphorated mercurial ointment, mercurial plaster, frictions, blisters, and electricity, have been employed, though without success. The removal of this gland with the knife is a very formidable operation, though Desault and others have accomplished it. Probably the safest plan is to cut down upon, and tie the thyroideal arteries first, afterwards proceeding with the operation. This will of course lessen the hemorrhage very much, which is the greatest impediment to our progress. Tying these vessels merely, effects a considerable reduction of the tumor, by cutting off the supply of the blood. Consult *Desault's Parisian Chirurgical Journal*. *A. Burns' Surgical Anatomy of the Neck and Head*. *Coindet on Iodine*. *Foderé Quadri*, and *Hutchinson on Seton*, in this disease.

BRUISES. See **CONTUSIONS.**

BUBO. By this term is meant a swelling of the lymphatic glands, particularly in the groin and axilla. They may be considered as of three different classes. 1. Those arising from some local irritation, such as gonorrhœa, corns on the feet, ill effects of venesection, &c. called *sympathetic buboes*. 2. Those produced by some irritating matter, as venereal poison. 3. Those produced from constitutional causes, as the plague, &c. See those diseases.

BUBONOCLE. See **HERNIA.**

BUCKTHORN. *Rhamnus.* The berries. Syrupus Rhamni, laxative, f. 3 ss. to i.

BURGUNDY-PITCH *Pix Abietas.* The prepared resin, used as a stimulating plaster.

BURNS and SCALDS. *Vulnus ex ustione factum.* These wounds are more or less dangerous from the extent of surface, depth, sensibility of the parts burnt, and the degree of heat of the burning substance. Burns are, by some, divided into four degrees. 1. slight redness without swelling or fever. 2. redness, swelling, pain, and if extensive, fever. 3. vesicles containing a clear, or yellow fluid, with increase of the former symptoms. 4. mortification, which either happens at the moment, from the excess of fire, or in consequence of subsequent vehement inflammation. Scalds are generally less severe than burns, because fluids quickly lose a part of their caloric, from being diffused.

Treatment. This consists of two opposite plans. The first is set forth by Sir James Earle, which comprises bleeding, purging, and the antiphlogistic regimen: applying cold washes, cold water, or pounded ice to the parts with the general treatment for inflammation. The second plan was brought into notice by Mr. Kentish, which consists of general stimulating means, as ether, cordials, and stimulants, internally, and the applications of alcohol, turpentine, &c. externally. Subsequently dressing with the yellow resinous ointment, excluding the air, and keeping down fungus by applying chalk to the wound. Mr. Kentish, reasoning from analogy, says, that as in frost-bitten parts it is necessary to gradually raise the temperature of the injured parts by the use of ice and snow, so with burns, the increased heat of the part should be gradually diminished. Both systems have their advocates. Mr. K.'s plan is thought to be preferable in burns inflicted from hydrogen gas in mines; but in other cases, Sir James Earle's method seems to be the most rational. In extensive burns the patient is often seized with a complete paroxysm of asthma, clearly indicating a sympathy between the skin and the lungs. Mr. Kentish says, the boasted virtue of vinegar in burns, is owing to the alcohol which it contains. The applications of oil, milk, and lime water, &c. is now but little employed. When burns are healing, it is necessary to keep neighbouring parts asunder, such as the fingers, the chin and breast, &c. as there is a disposition in such cases to form adhesions which remain through life. Even when they have been afterwards divided with the knife, they have frequently again united, causing much deformity.

If a joint be injured, care must be taken to put it early in motion to prevent ankylosis; but should ankylosis from the extent of the injury seem inevitable, the limb should be previously put into such a position as will be most useful to the patient hereafter.

The best surgeons agree that the vesicles may be punctured, but that the detached cuticle should not be immediately removed. See *Sir James Earle's Essay on the means of lessening the effects of fire on the human body. Kentish's two Essays on Burns. B. Bell's Surg. Larrey's Mem. Mil. Surg. Bigelow, in New. Eng. Med. Jour. &c.*

BURSÆ MUSOCÆ, *Enlargement of.* The Bursæ musocæ are small membranous sacs, situated about the larger joints under the tendons, where they pour out an oily kind of fluid to lubricate the parts and prevent friction. These sacs occasionally become much enlarged, from a preternatural accumulation of this fluid, or obstruction of their mouths; induced by sprains, bruises, rheumatism, scrophula, &c. The swellings are, for the most part, unattended with pain, are elastic, and without redness or inflammation. The contents of the enlarged sac, when arising from a rheumatic cause, are fluid; when arising from a scrophulous cause, of a thicker consistence; when from bruise or sprain, a concrete or cartilaginous matter is often found. These swellings may be opened by puncture, or seton, and their contents evacuated, taking care not to wound any tendons in so doing; afterwards preventing a re-accumulation by compresses and bandages. Mr. S. Cooper says he never saw a case, that would not yield to such discutients as are employed for the promotion of absorption of tumors elsewhere. Indeed, the treatment, he says, should be very like that of *Hydrops Articuli*. (See *Joints*.) Consult *Monro's Works* by his son, and *Latta's Surgery*.

BUTTERNUT, *Juglans*. The inner bark of the root. *Extractum Juglandis*, laxative, gr. v. to xv.

CACHECTIC DISEASES. These are characterized by a depraved state of the whole body, without primary febrile, or nervous affections.

CACHEXY, *NEGRO*. *Cachexia Africana*. This disease is very common among the negroes in the West India Islands; where it is, by the French, called *mal d'estomac*, and by the English, *dirt-eating*, from the singular propensity of the sufferers to eat dirt. It bears some analogy to nostalgia. Dirt-eating is also common in some parts of Egypt. (See *Sonnini's Travels*, and *Humboldt's Personal Narrative*.) There is some analogy too, between it and chlorosis, only that the latter is confined to the female sex.

The disease seems to depend upon a want of proper energy in the system, induced by hard labour, bad food, cruel treatment, and grief at being separated from friends and country. It is to be treated by preventing them from indulging in their fatal habit of eating dirt, removing the acrimony in the stomach (which causes the habit); by exhibiting emetics, alkalies, &c. as in dyspepsia; together with a wholesome nutritious diet. See *Dr. Thomas's Practice of Physic*.

CAJUPUT-OIL. Highly stimulating, antispasmodic, diaphoretic, ℥i. to iv. Externally for palsy, rheumatism, tooth-ache, &c.

CALOMEL. See MERCURY.

CAMPHOR. Camphora. Combined with carbonate of ammonia, stimulant; with opium, anodyne; with antimonials febrifuge. Useful in ardor urinæ, gr. iij. to ℥j. *Mistura Camphoræ*, same, f. ℥j. to ij. *Tinctura Camphoræ Opiata*, (paregoric) pectoral, in asthma, phthisis, &c. ℥xx. to f. ℥i. Externally rubefacient, resolvent, and spread over the surface of blisters prevents the cantharides from producing strangury. *Tinctura Camphoræ*. *Linimentum Camphoratum*. *Linimentum Saponis Camphoratum*. Useful for bruises, sprains, chilblains, &c.

CANADA BALSAM. *Terebinthina Canadensis*. Stimulant, diuretic, ℥x. to xx.

CANCER.

CANCER, or CARCINOMA. In the occult stage, or the stage of simple tumor, prior to ulceration, it is called *Scirrhus*. It is one of those kinds of inflammation termed *specific*, and goes through all the stages of common inflammation, but like other specific inflammations, in an imperfect degree: thus in the adhesive stage, a hard marble-like feeling matter is thrown out, instead of common adhesive matter; in the suppurative stage, an acrid ichor is formed, instead of bland pus; and the granulations produced are hard, insensible, and everted, instead of soft, sensitive, and uniting as in the healthy process. Cancer occurs, primarily, in secreting, and lymphatic glands, mucous membranes, (the lungs excepted) skin, and cellular membrane. When other parts become affected, it is by contamination from those parts just mentioned. It is rarely seen previous to the middle of life, with the exception of that species called Chimney-sweepers' Cancer. The female breast and uterus are the most frequent seats of its attacks, particularly at the period of the cessation of the menstrual discharge. Doubts seem to be entertained of its being hereditary, as well as of the existence of a constitutional virus; yet it is admitted, that a peculiar state of the system may be pres-

ent to favour its developement on the occurrence of local cause. Many other diseases have been mistaken for, and operated upon, as cancer; and many diseases, which do not at first appear cancerous, afterwards become so, or at least ulcers equally malignant. Cancers upon the skin are slow in their progress, and do not readily extend by absorption; this is particularly the case in cancer upon the lips, nose, eye-lids, &c. There is no remedy for this disease but the removal of the part, and that too quite early, while it remains a local affection; for, after it has extended from its seat to the neighbouring glands, it may be fairly considered constitutional, and incurable. Hence the necessity of removing cancers early. The neighbouring glands, however, will now and then enlarge from sympathy merely. This happens for the most part, quite early, and should not be mistaken for the real disease.

Symptoms. A hard, heavy, circumscribed tumor, with occasional darting, lancinating pains, always attended with a growth of the swelling. The pain, in the early stage of the disease, occurs at long intervals. The surface of the tumor is knotty and irregular; detached from the skin and surrounding parts. After some time, the skin assumes a dull lead color; becomes corrugated; and the tumor begins to adhere to the adjacent parts, and to contaminate the nearest absorbent glands. The skin now becomes more red, and ulceration at length ensues, when the disease takes the name of *cancer*. A bloody discharge is now poured out; the edges of the ulcer are everted and irregular; a fetid ichor is secreted; few granulations appear, and these become inveterate fungusses. The ulcer spreads, destroying all before it, even the bones do not escape, which in advanced cases become so remarkably brittle in all parts of the body, as to be broken from very slight causes. Vomiting and other dyspeptic symptoms ensue, as the disease extends to the internal parts; hectic fever comes on, and the patient at length sinks under this frightful malady. *Causes.* A blow upon the breast, testicle, or other gland, generally brings on the disease; a breach of continuity upon the skin, by picking off a wart or pimple, often induces it there; the period of the cessation of the menses is favourable for its production in the uterus. A predisposition to the disease however probably does exist previously. *Diagnosis.* The hard circumscribed feel, with the darting pains, are the most characteristic marks of cancer.

Treatment. It is a position never to be doubted, that the moment a disease is ascertained to be truly scirrhus and within reach of the knife, that its extirpation is to be

effected without loosing any time for the trial of medicines.

But when there exist doubts of the reality of its character, when it has proceeded too far, when the part affected is not accessible to the knife of the operator, or the patient will not consent to the operation, we are to attempt its cure or palliation by giving circuta, belladonna, digitalis, mercury, arsenic, iron, barytes, &c.; together with general bleeding, vegetable diet, good air, and exercise. Cold lotions to the swelling and topical bleeding, and if ulceration has taken place applications of arsenic are useful. Carrot poultices applied to the wound, also powder of hark and opium to allay irritation and diminish the fœtor. Opium may be used internally to relieve pain. As auxiliaries, electricity, and preserving a regularity of temperature in the part, by covering it with oil skin, or fur may be used. The project of curing cancer by pressure and bandages is now very properly abandoned.

In performing the operation, the skin, cellular membrane, absorbent glands, and all parts in the least degree contaminated must be entirely removed. After the operation, Mr. Abernethy urges a perfectly tranquil state of the system; a milk, or vegetable diet; a perfectly healthy condition of the digestive functions. Should there be any reappearance of the disease, it should be immediately cut away, or destroyed with caustic. But it is to be lamented that many relapses occur, and destroy the patient. Mr. A. Cooper says, that whenever he hears of a perfect cure following the extirpation of a cancerous breast, that he doubts if it really was cancer; so rarely does he meet with success in this part of his practice. The operation in other parts, however, is not so hopeless.

On cutting open a scirrhous tumor, it is found to consist of membranous or ligamentous septa, running in various directions. There has been occasionally found a cartilaginous substance, at other times, cysts containing a serous fluid.

The foregoing remarks will apply to cancer of the breast, male or female. The male breast is also subject to cancer. For the mode of operating, see Breast. Also Tumors. Consult *Abernethy's Surg. Obs.* Fearon, *Home*, and *Denman on Cancer.* Wardrop on *Fungus Hæmatodes.* *Bell's Surgery.* *Cooper's Surg. Dict.*

CANCER OF THE UTERUS. Next to the breast, this part is the most frequent seat of cancer, and that generally at its cervix. Its early symptoms resemble polypii and procidentia, such as a sense of weakness and pain; leucorrhœal discharge and bearing down; hemorrhage.

To these may be added deep seated lancinating pains through the pelvis; the digestive functions much deranged; pain in coitu; and upon examination, the os tincæ is found thickened, indurated, and somewhat dilated. As soon as ulceration has taken place, there is a constant discharge of fetid sanies, and sometimes of blood, from the vagina. The os tincæ is now more open, and beset with ragged irregular edged ulcers, which are painful upon being pressed upon. The vagina becomes hard, and thickened; its rugæ less distinct, and at length ulceration extends there also. Enlargements of the glands in the groin, vomiting, hectic fever, &c. puts a period to life. Nothing but the mildest injections need be added to the treatment already laid down, except opiates infus. Sarsap, and Ext. Con.

CANCER IN THE TESTICLE. The disease in this part, begins sometimes at one, at others, at different parts of its surface, in distinct tumors, which at length go on to ulceration, contaminating the entire gland. It is very slow in its progress, occupying a year or two; at length the epidymis and spermatic cord become contaminated, from whence it extends into the abdomen and destroys the patient. The lancinating pain coming on at intervals, attended with a growth of the tumor; its peculiar hardness, &c. will distinguish it from other affections of the testicle.

Treatment. Similar to that already described, taking care to extirpate the organ before the cord has become affected.

CANCER OF THE LIP. Here the disease makes its first appearance in the form of a wart-like excrescence, never growing to a great size; or in the form of an ulcer, or hard tumor, which goes on to ulceration. These affections frequently, do not appear malignant at the outset. The lower lip is most frequently attacked. There it may be successfully extirpated, at any time previous to its extension by absorption. There are many ill-conditioned sores occurring upon the lips, which readily give way to emetics, purges, and alteratives. The operation is to be performed like that for Hare-Lip, which see. Cancer upon the eyelid, or any part of the face, appear much in the same manner.

CHIMNEY SWEEPER'S CANCER, or Cancer Scroti. This peculiar form of cancer, is endemic in the island of Great Britain. It is caused by the irritation of the soot in the rugæ of the scrotum, though it has been seen on the foot and back of the hand. It was discovered by Mr. Pott. (See his works.) It makes its appearance in the form of an ill-looking, ragged ulcer, which if not timely

removed extends to the testicle, glands of the groin, and abdomen, destroying all before it, and ultimately the life of the patient.

Treatment. The whole ulcer and accompanying hardness to be immediately removed with the knife, together with the testicle, should that be diseased also. But should the glands of the groin be affected, it is too late to operate, and we can only employ the palliative treatment.

CANCER OF THE EYE. Many other diseases of the eye have, doubtless, been mistaken for cancer; and we are only sure of its reality, by attending to the deep-seated, lancinating, periodical pain, peculiar to cancer, the ragged-edged ulcer, and fetid discharge. A cure may here be effected by extirpating the organ, provided the membrane, bones, &c. of the orbit be not contaminated. When superficially situated on the cornea, we may content ourselves by carefully dissecting it off. For the operation for extracting the eye, see EYE.

CANELLA. *Canella.* The bark. Aromatic, stimulant, gr. xv to ℥ij.

CANTHARIDES. *Cantharides.* Stimulating, diuretic, emmenagogue; also useful in gleet, leucorrhœa, gonorrhœa, &c. gr. i. to iij. *Tinctura Cantharidum*, same; ℞x. to f. 3ss. *Tinct. Capsici et Canth.* *Liminentum Canth.* *Ceratum Canth.* These three articles, are external vesicating applications. *Unguentum Canth.* Vesicated surfaces are kept discharging by this application. *Emplastrum Resinosum Cantharidum.* Stimulating plaster.

CARAWAY. *Carum.* The seeds. Carminative, gr. x. to 3ss.

CARBUNCLE. See BOIL.

CARCINOMA. See CANCER.

CARDAMOM. *Cardamomum.* The seeds. Aromatic, carminative, gr. v. to ℥i. *Tinctura Cardamomi*, same, f. 3ss. to iij.

CARDIALGIA. See HEART-BURN.

CARDITIS. See INFLAMMATION of the HEART.

CARIES. See BONES.

CARMINATIVES. Ether, caraway, cardamoms, coriander, pepper, ginger, aromatics, and such other articles as relieve pain from flatulence.

CARUNCLES, or fleshy substances, sometimes form in the urethra, in consequence of gonorrhœa. They are to be removed by dilating the urethra with bougies, and then cutting them away with the knife, or by applying caustic.

CASCARILLA. *Cascarilla.* The bark. Aromatic, tonic, ℥i. to 3i. *Infusum cascarillæ*, same, f. 3i. to ij.

CASSIA, Purg. *Cassia fistula*. The pulp of the pods. Laxative, $\frac{3}{4}$ ss. to i. *Confectio cassiæ*, same, $\frac{3}{4}$ iij. to $\frac{3}{4}$ i.

CASTOR. *Castoreum*. Antispasmodic, anti-hysterical, emmenagogue, gr.v. to $\frac{3}{4}$ i. *Tinctura Castorei*, same, f. $\frac{3}{4}$ i. to iij.

CASTOR-OIL. *Ricini oleum*. Laxative, f. $\frac{3}{4}$ ss. to i.

CASTRATION. See **TESTICLE**, Diseases of.

CATARRH. *Catarrhus*. This disease consists of two species. 1. *Catarrhus à frigore*, or common cold. 2. *C. contagiosus*, or the Influenza.

Of the 1st species. Symptoms. Heat, fulness and obstruction of the nose, with some degree of oppression at the chest, and difficulty in breathing; the eyes watery and inflamed; coryza or increased secretion of mucus from the membrane lining the nose, fauces, and bronchiæ; cold shiverings, and flushings of heat alternately; cough, and hoarseness; pains in the chest, and soreness of the fauces and trachea; symptoms increased towards night, with slight febrile exacerbation. It attacks persons of all ages, but more particularly the young, and those who are subject to pulmonic affections. It generally goes off in a few days. It is not dangerous, unless it occurs in old persons, who, sometimes from debility, are unable to expectorate the viscid phlegm, which, with them, is often effused into the air tubes. Sometimes however, it is, in consumptive habits, the precursor of that fatal disease; and sometimes too, induces pneumonia. It is caused by sudden changes of the atmosphere, and is most prevalent in damp weather. Its proximate cause, is an inflammation of the mucous membrane of the throat, &c. before mentioned.

Treatment. When its severity requires the use of medicine, it is usual to observe two indications. 1st. to lessen the febrile action, by venesection, if it be active or indicate pneumonia; by cathartics, diaphoretics, and adopting the antiphlogistic regimen. 2d. to allay the irritation of the parts affected, by the application of a blister to the chest; by the use of tepid diluents, as herb tea, barley water, &c. by demulcents, as flaxseed tea, almond mixture, &c.; by expectorants, if expectoration is difficult. After all the febrile symptoms have abated, the cough will sometimes remain, become chronic, attended with copious expectoration, restlessness, debility, &c. particularly in old persons. Here opium, cordials, &c. are indicated, the prussic acid too will prove useful.

In the 2d species, or Influenza, the same remarks equally apply. Sometimes however, symptoms of debility are present, indicating the use of tonics and cordials. It is

also much more severe than common cold, sometimes fatal, and is said to be contagious, though probably only epidemic. It terminates about the fifth, or sixth day. It is probably engendered, by a peculiar state of the atmosphere, brought about by a succession of damp, hot, and close weather. It appeared in the years 1732-33, all over Europe, and part of America, and again in Great Britain, in 1785, and also in 1803.

CATARACT. See **EYE**.

CATECHU. The extract. Powerfully astringent, ℞ss. to ʒss. *Tinctura catechu*, same, f. ʒ to iij.

CATHARTICS. *Stimulating.* Elaterium, gamboge, scammony, colocynth, aloes, jalap. *Refrigerating.* The neutral salts, crystals of tartar, cassia fistula, tamarinds, prunes. *Restraining.* Rhubarb, senna. *Emollients.* Castor oil, oil of almonds, manna, honey. *Nacortic.* Digitalis, meadow saffron, tobacco.

CAUSTICS. Such articles as destroy the living fibre by burning, or chemically decomposing them; as potass, potassa cum calc, muriate of antimony, nitrate of silver, sulphuric acid, &c. The French, in many cases, prefer the actual cautery, or red hot iron. See *Maunoir, in Med. Chir. Trans.*

CAYENNE. See **PEPPER**.

CENTAURY. AMERICAN. *Sabbatia*. The plant. Tonic and stomachic, in infusion or tincture.

CEPHALICS. Such articles as relieve head aches; as, preparations of ammonia, vinegar, snuffs, &c.

CHALK. See **LIME**.

CHALYBEATES. See **IRON**.

CHAMOMILE. *Anthemis*. The flowers. Tonic, stomachic. *Infusum Anthemidis*, f. ʒ i. to iij. *Extractum Anthemidis*, ℞ i. to iij. Externally used as a common fomentation in the form of decoction.

CHANCER. See **VENEREAL DISEASE**.

CHARCOAL. *Carbo Ligni*. Antiseptic. Used in dyspepsia, gr. x. to ʒj. Externally in fine powder to fetid ulcers, sprinkled over their surfaces, or incorporated with the yeast or common poultice; also used as a dentifrice.

CHEMOSIS. See **OPHTHALMIA**.

CHICKEN POX. See **POX**.

CHIGRE. This is a small sand flea, which proves very troublesome in the West Indies, by insinuating itself into the fingers and toes, particularly under the nails, causing much heat and itching. It there shortly deposits, in a cyst, innumerable nits, or ova, which become fresh animals of the same species, and soon cause a troublesome ulcer. The remedy is to extract the whole sac without bursting, in do-

ing which, the negro women are very expert; and a cure follows. *Dr. Thomas's Practice.*

CHILBLAIN. *Pernio.* Chilblains are small inflammatory swellings, occurring during the winter season upon the feet, hands, ears, nose, &c. attended with a troublesome heat and itching, which sometimes go on to suppuration, and induce indolent sores. They are caused by changes of temperature, and are most frequent in children who warm their feet suddenly when very cold. They are also frequent in irritable and schrophulous habits, and in persons who have thin tender skins, and who confine themselves in warm rooms.

Treatment. Prior to suppuration we are to endeavour to discuss these swellings, for effecting which, probably, the best remedies are snow or iced water. It is most common, however, to apply various discutients, as alcohol with camphor, diluted muriatic acid, tincture of myrrh and vinegar, equal parts of spirits of turpentine and capiba balsam, saturnine lotions, &c. covering the feet with leather socks.

Suppurated chilblains require topical stimulants, as warm vinegar, solution of nitric acid, or Plumb. Subacet. Liquid, f. ʒij. Aq. Calcis, f. ʒv. to v.ij. The unguentum acid, bit. Ung. Hydr. Nit. oxid., &c.

Should they assume a gangrenous aspect, the treatment must be varied accordingly. See Mortification. Consult *Rees's Cyclopædia*, article *Chilblains*.

CHORDEE. See VENEREAL DISEASE.

CHLOROSIS. See MENSES, RETENTION OF.

CHOLERA MORBUS *Symptoms.* Violent vomiting and purging of bilious matter, attended with griping pains and flatulence; quick, small, unequal pulse; thirst and heat, followed by chills; cold sweats; anxiety; spasmodic affection of the extremities; sometimes general convulsions, hiccup, and death, oftentimes in twenty-four hours. It attacks chiefly young persons and children, and prevails particularly in the summer and autumn. It is very fatal in the East Indies, where it prevails epidemically in particular seasons, with most destructive fury. See *Reports on the Epidemic Cholera in Hindostan*.

In the southern cities of the United States, it is very fatal to weakly children during hot months. Its proximate cause is a preternatural secretion of bile, in quality, or quantity, the constant evacuation of which, upwards and downwards, distinguishes this from all other diseases. When the violence of the symptoms continue, with great prostration of strength, together with convulsions, &c. our prognosis must be unfavourable. But a remission, or

diminution of the severity of the symptoms, may be always considered favourable.

Treatment. Large and repeated draughts of diluents, for the purpose of diluting the acrid bilious matter, as barley, or rice water; linseed tea; gruel, &c. Glysters of the same articles. We are next to allay irritation, by exhibiting opium in large and repeated doses; by fomentations applied warm to the stomach and bowels, and warmth to the extremities. If these means fail, we may inject opium into the rectum in large quantities; apply a plaster of opium and camphor, or a blister, to the pit of the stomach. Give also musk, aromatics, and absorbents. As soon as any food can be retained on the stomach, we may allow jellies, beef-tea, and the like. After the disease has subsided, we are to restore the tone of the stomach, by tonic bitters and aromatics, exercise, &c. removing any bile that may be suspected to remain by mild doses of castor oil, rhubarb, &c.; guarding against relapses, by continuing the opium for some days, keeping the feet and bowels warm, and particularly by avoiding any crude vegetable food, or fruits. In some cases the attack is so very violent, and the depression so great, that stimulants and cordials, as warm brandy and water, spices and opium, must be immediately resorted to, together with the warm bath. In the late epidemic in the East Indies, bleeding was practised with success, though some cases left no time for the trial of remedies, the patient not surviving four hours from the attack. Even the brute creation did not escape its fury, and it is stated in the work above referred to, that an Elephant was seized with cholera morbus, and cured with brandy and laudanum. Consult *Whiting, in Edinburgh Med. and Surg. Jour.* vol. xvi. *Rush's Inquiries and Obs.* *Stuart, in Cox's Philad. Med. Museum.*

CHOREA SANCTI VITI. *St. Vitus' Dance.* This disease is known by convulsive motions, chiefly affecting one side of the body. When the patient attempts to perform any motion, the fibres of various other muscles act, which produces an effect different from the one intended. This gives rise to a continual display of ridiculous antics and ludicrous gesticulations. It is seldom seen beyond the age of puberty.

Symptoms. The fits are sometimes preceded by a coldness of the feet and limbs, or a tingling sensation that ascends like cold air up the spine; and there is a flatulent pain in the left hypochondrium with obstinate costiveness. At other times the fit begins with yawning, stretching, anxiety, palpitations, difficulty of swallowing, giddiness,

&c. The convulsive motions now come on by a lameness of one of his legs, which he draws after him as if paralytic; the arm on the same side is continually in motion, and in eating, drinking, or what not, all the ridiculous gestures above stated take place. As the disease increases, the eyes lose their brilliancy; emaciation, loss of speech and appetite ensue, and, not unfrequently, it ends in epilepsy or idiotism; but is rarely fatal. *Causes:* General debility, however induced; frights; passions; teething; irritation in the primæ viæ; worms; poisons; bad air; imitative contagion.

Treatment. This must be governed by the cause of the malady; if it be from teething, the gums must be lanced; if from worms, anthelmintics will be proper; if, as Dr. Hamilton says, it often does depend upon a deranged state of the primæ viæ, (*See his Obs. on Purgative medicines,*) emetics and purgatives must be exhibited; if from general debility, bark, wine, and the metallic tonics, together with change of air, cold bathing, good diet, &c. Sometimes antispasmodics are useful, as musk, opium, camphor. Also blisters and electricity. When the disease has arisen from imitation, terror has proved useful, and prevented other children from imbibing the same habits. Consult *Hall, in Annals of Med.* vol. iv. *Alexander in do.* vol. vi. *Wood do.* vol. vii. *Williamson in Phil. Med. Museum,* vol. i. and others.

CHYLOPOETIC ORGANS, OR VISCERA.

These are the parts concerned in the formation of chyle, such as the liver, gall, bladder, pancreas, small intestines, &c.; called by the French the *gastric system*; to a disordered state of which, they refer many diseases. A *disordered, deranged, or unhealthy* state of these organs and their secretions, do certainly keep up, if not cause many diseases, as rheumatism, amaurosis, &c. Its existence may be known by an unhealthy appearance of the feces, high coloured and dirty urine, cardialgia, fetid eructations, &c. These are to be brought back to a state of health, by cleansing the primæ viæ, by means of emetics and purges; by altering the state of the secretions from the above named viscera, by means of the blue, or Plummer's pill; and by restoring their lost tone, by means of a diet of animal jellies, arrow root, wine, brandy, tonics, free air, exercise, cold bathing, &c. Mr. Abernethy has written a valuable work upon this subject.

CICATRIZATION. See GRANULATION.

CICUTA. See HEMLOCK.

CINCHONA. *Peruvian Bark.* There are three species. 1. *Cinchona pallida*, or pale bark. 2. *C. rubra*, or

red bark. 3. *C. flava*, or yellow bark. Properties: tonic, antiseptic, stomachic, ℥i. to ℥ij. It has long been proved specific in intermittents. It is contra-indicated in organic inflammation, and pulmonic irritation. *Decoctum cinchonæ*, f. ℥j. to iv. *Extractum cinchonæ*, gr. v. to xv. *Infusum cinchonæ*, f. ℥j. to iv. *Inf. cin. cum aqua calcis*, useful in cardialgia, f. ℥j. to iv. *Inf. cin. cum magnesia*, f. ℥j. to iv. *Inf. cin. cum succo limonum*, f. ℥j. to iv. This preparation seems well designed for typhus, and fevers that require bark. *Tinctura Cinchonæ*, f. ℥i. to iij. *Tin. Cin. Composita*, f. ℥i. to iij.

CINNAMON. *Cinnamomum*. The bark. Stimulant, aromatic, astringent, gr. v. to xx. *Aqua Cinnamomi*, same, f. ℥i. to iij. *Oleum Cinnamomi*, ℥i. to iij. *Tinctura Cin.* f. ℥i. to iij.

CIRSOCELE. See TESTICLE.

CLOVES. *Caryophylli*. The flower buds. Aromatic, stimulant, gr. v. to xx. *Oleum Caryophyllorum*, ℥ij. to v.

COLIC. *Colica*. Distention, and violent pain in the abdomen; twisting sensation at the navel; spasmodic affection of the abdominal muscles, often accompanied with bilious vomiting; costiveness; very little fever; hiccup and eructations. In severe cases, there sometimes arises stercoraceous vomiting, when the term *ileus* or *volvulus* is applied; inflammation and intussusception is then apt to ensue. *Causes*. Exposure to cold; crude aliment; redundancy of bile; indurated feces; alvine concretions; flatus; lead, however taken into the system; hysteria; costiveness; gouty or rheumatic metastasis; worms, &c. It is readily known from other diseases of the abdomen, by the absence of fever, the occasional remission of pain, and its diminution upon pressure. The *proximate cause* is spasm of the muscular coat of the intestines.

Treatment. The indications are, 1st, to remove the spasm, by venesection, if the patient be young and plethoric; by opium, by mouth and glyster; by the warm bath or semicupium, and fomentations; by blisters to the abdomen; by mechanical dilatation, performed by means of large quantities of tepid water thrown up the rectum; by dashing cold water over, or applying bladders containing powdered ice to the abdomen; by tobacco glysters. The 2d indication is, to procure evacuations from the bowels as soon as the spasm is in some degree removed, by mild purges, as castor oil, tincture of senna, pills of calomel and opium; by purgative glysters of neutral salts, &c.; by breaking down, and extracting the hardened feces in the rectum with a lithotomy scoop, or other convenient

instrument. Vomiting to be relieved with the effervescing draught and opium, particularly the acetum opii. Opium may also be conveyed into the system by friction, mixed with lard. As soon as the bowels are freely evacuated, the disease is subdued. After the recovery, the patient must guard against a relapse, by avoiding cold and improper food.

These remarks apply to colic generally. Authors divide this disease into several species, as follows, though they all depend upon spasmodic contraction of the intestines.

1. COLICA PICTONUM, *Devonshire colic, or dry-belly-ache*. The peculiarities of this form are, all the symptoms above enumerated in a more violent degree, with vomiting of green porraceous bile; paralysis of the extremities; the pain and spasm so intense, as often induce inflammation and mortification. It is common in Devonshire, Eng. owing, as is supposed, to drinking cyder. It is also common in the West Indies, and among those who work much among lead. Its treatment requires the rigorous application of the before named remedies, particularly copious blood-letting; rubbing the paralyzed limbs with liniments; using electricity; and exhibiting mercury, as an antidote to the lead, until the mouth is affected. Consult *Dr. Clutterbuck on Lead Poison*. *Dr. Pemberton's Treatise on the Abdominal Viscera*, &c. Colic may be caused by various other poisons. See POISONS.

2. COLICA HYSTERICA. This form appears in the hysteric subject, attended with hysteric symptoms, preceded by flatulence and costiveness. Antispasmodics, carminatives, and stimulants, are here more particularly indicated.

3. COLICA CALCULOSA. See Alvine Concretions.

4. COLICA VERMINOSA, or colic caused by worms, requiring vermifuges.

5. C. MECONIALIS. See Meconium, Retention of.

6. C. SPASMODICA, arising from spasm.

7. C. STERCOREA, or vomiting stercoraceous matter.

8. C. BILIOSA, or vomiting of bile. Consult *Heberden's Commentaries*. *Baillie's Morbid Anatomy*. *Clark on Bilious Colic*. *Willan, on Diseases of London*. *Orfila's Toxicology*. *Hosack, in Duncan's Annals of Medicine*. *Barton, in Am. Philad. Trans. vol. V. &c.*

COLOCYNTH. *Colocynthis*. The fruit, deprived of its rind and seeds. Cathartic, gr. v. to x. *Extractum Colocynthis Compositum*, same, gr. v. to ℥i. *Pilulæ Colocynthis Extracti Compositi*. Cathartic, i. to ij.

COLLIQUATIVE SWEAT. A profuse symptomatic perspiration. A profuse symptomatic diarrhœa is also termed colliquative. These two disorders are often seen in company with hectic fever, in consumptive cases, wounds, and other affections, giving rise to high local irritation, alternating with each other, and inducing vast debility. They can only be removed by removing the cause which gives rise to them. When this is not practicable, we can only attempt their palliation; that of the former, by avoiding hot drinks, by sleeping lightly covered, and by taking sulphuric acid: that of the latter, by the use of aromatics, astringents, opiates, and a diet of boiled milk and rice, &c. avoiding crude articles of food of all kinds.

COLUMBO. *Colomba.* The root. Tonic, stomachic, gr. x. to xx. *Decoctum Colombæ Compositum*, same, f. ʒ i. to ij. *Infusum Colombæ*, f. ʒ i. to ij. *Tinctura Colombæ*, f. ʒ ss to ij. These preparations are excellent tonic bitters in debility of the digestive organs.

COLUMBO, AMERICAN. *Fraseria.* The root. Stomachic bitter; indigenous substitute for the preceding.

COMA. *Drowsiness, or sleepiness.* A symptom attending many diseases,

CONSTIPATION. *Ostipatio.* This disease may be constitutional, or symptomatic.

Symptoms. Retention of the feces, for two, four, six, or even ten days, attended with a degree of hardness, and dryness, of the stools, so as to render their passage difficult and painful. The patient is afflicted with flatulence, head-ache, thirst, and other dyspeptic symptoms. Females, and those persons whose occupations are sedentary, gouty, hypochondriacal, bilious, and dyspeptic patients, are mostly affected in this way. It is principally caused by neglecting regularity in going to stool, and checking the natural inclinations to this salutary evacuation; also from irregularity in diet; eating dry or improper food; copious sweating; indulgence in warm feather-beds; use of opium, port wine; organic disease, particularly of the liver; strictures in the rectum, &c.

Treatment. We are, 1st, to remove or avoid the exciting cause. 2d, to clear the bowels completely, by exhibiting cathartics of neutral salts. 3d, to procure a regular daily stool for the future. To effect which, it is of the first importance that the patient should repair every morning to the vault, and there solicit an evacuation without the aid of medicine, for the space of half an hour. Should this not prove successful, we are to exhibit a small dose of

laxative medicine every night, and advise the same efforts in the morning, which, after a time, rarely fails. There is no practice more hurtful, than taking occasional strong doses of purgatives ; for it tends to increase the debility of the intestines, which is doubtless the proximate cause of the complaint. The diet to be light and easy of digestion ; the patient may eat freely of oranges, prunes, and other ripe fruits. In many cases, signal relief has been obtained by exhibiting powdered charcoal : its *modus operandi* is not obvious. Glysters, repeated once or twice a day, if cathartics fail. Frictions of the abdomen are also proper. 4th, To restore the lost energy of the stomach and bowels, with tonics, proper exercise, change of air, &c.

Costiveness in pregnant women requires only the temporary use of laxatives or glysters, as it goes off after the evacuation of the uterus. Aloes should not be used in these cases, as they are apt to induce piles. Consult *Johnstone, in Duncan's Edin. Med. Com. vol. 1. Gerard, in do. vol. 10. Hosack, in Duncan's Annals of Med.*

CONSUMPTION OF THE LUNGS. *Phthisis Pulmonalis.* Characterized by emaciation, debility, pain in the chest, cough and purulent expectoration.

Symptoms. Tubercular consumption begins with a short dry cough ; breathing, easily affected ; languor ; loss of strength and flesh ; small and soft pulse : though in many cases, the symptoms are more inflammatory. In this state, the patient may remain a long time, having an increase of cough, &c. upon taking fresh cold. The cough is at length attended with expectoration, which, by degrees, becomes opaque and viscid, often streaked with blood ; the breathing is more difficult : the emaciation and debility increase ; pain in the chest, particularly upon coughing, or making a full inspiration. The summer frequently arrests the progress of the symptoms ; the winter, on the contrary, aggravates them.

The pulse, from being soft and small, now becomes full, hard, and frequent. At the same time the face flushes, particularly after eating. The palms of the hand, and soles of the feet are affected with a burning heat ; the respiration is difficult and laborious ; evening exacerbations become obvious, and the fever assumes the hectic form.

The patient now suffers under colliquative sweats, and diarrhoea, debility, and all the ravages concomitant therewith ; the unhappy sufferer becomes a mere walking skeleton ; expectoration is copious and purulent ; his hair falls off ; the calves of his legs are nearly annihilated ; his nails are livid and incurvated ; there is aphthæ of the

mouth and fauces; œdema of the feet and ankles; but the senses are retained to the last, with the fullest persuasion of a speedy recovery, and his last moments are frequently occupied, in planning projects of business or pleasure after his recovery. *Causes*: Tubercles in the lungs, depending for the most part upon a scrophulous habit, pneumonia, hemoptysis, catarrh, measles, asthma, singing, declaiming, or playing upon wind instruments; inhaling noxious particles in manufactories, &c. Among the *predisposing causes* we may enumerate, hereditary predisposition; malformation of the chest; scrophulous diathesis; humid atmosphere; sudden transitions of temperature. To ascertain if suppuration has actually taken place, the reader is referred to the article *Pus*, for the mode of testing the expectorated matter.

Pulmonary consumption is a very frequent and fatal disease in the United States, but still more in Great Britain, from the deleterious consequences of the numerous manufacturing establishments. The disease is frequently suspended during pregnancy, and sometimes by mania, but it recurs with redoubled fury after the removal of such diseases. It makes its appearance almost always, from the age of puberty, to the twenty-fifth year. The left lobe of the lungs is found to be the most frequent seat of the malady. The *Prognosis* is to be governed by the degree of hectic fever, and emaciation; by the expectorated matter being, or not, purulent.

Treatment. The most favorable moment for arresting the progress of the disease, is during the first stage; for, after ulceration has really taken place, it proves fatal. If tubercles are suspected to exist in the lungs, our object is to subdue the inflammation and induce it to end in resolution. For this purpose we are to perform venesection, repeating it as long as the pulse will admit of this evacuation. For the same object we are to exhibit purges of salts, manna, &c.; diaphoretics, as the liquid acetate of ammonia, antimonial or Dovers' powder, emetics, particularly the sulphate of copper; the patient abstaining from liquids during the operation, (called *dry vomiting*.) We are still farther to pursue this object by applying blisters to the chest frequently; also issues and setons: by exhibiting sedatives, as nitre, digitalis, cicuta, &c.: by adopting the antiphlogistic regimen. The cough to be appeased by demulcents and pectorals, as linseed tea, spermaceti, acacia gum, dissolved. As soon as the inflammatory symptoms have subsided, we may administer myrrh, sulphate, iron, &c. but particularly the *mistura ferri composita*; (myrrh mixture,) also a light nutritive diet, as arrow root,

sago, tapioca, Iceland moss, shell fish ; also a milk diet, asses' or mares', if it can be procured. The patient is also to wear warm clothing of flannel or fleecy hosiery ; avoid colds, and if possible undertake sea voyages, or reside in the mild climates of France or Italy. Exercise, mineral waters, &c.

When the inflammatory symptoms are subdued, it is of the utmost importance to put a stop to the irritating and tickling cough, which is apt to continue ; for this purpose, the prussic acid, lately brought into use, stands conspicuous. We may also employ the tolu balsam, oleaginous draughts, paregoric, &c. The *tar fumigation* is also useful, as recommended by Dr. Crichton. It is prepared, by placing an earthen vessel containing a pound of tar, and one ounce of subcarbonate of potass over a spirit lamp, until the room is filled with vapour, which the patient is to breathe half an hour. The process to be repeated thrice, daily.

But when the second stage, marked by hectic fever, diarrhoea, and purulent expectoration has come on, we can only palliate those symptoms, (see Colliquative diarrhoea) use the same remedies for his cough, and conduct him to the grave. Consult Morton, *Phthisiologia*. Huxham's *Works*. De Haen's *Ratio Medendi*. Mossman, Reid, Desault Smith, Hunter, Beddoes, Young, Duncan, Southey, Mansford, Rand, on this subject. Rush's *Med. Obs. and Inq.* Armstrong, &c. &c.

CONTUSIONS. See WOUNDS.

CONVULSIONS. *Convulsiones*. Puerperal Convulsions. These come on from the sixth month of pregnancy, to the period of, and after delivery. It resembles a fit of epilepsy, and can be distinguished from it, only by its greater violence. It mostly occurs with the first child, particularly if the woman be unmarried. There are *two species* of this kind of convulsions ; one, dependent upon an irritable and excitable state of the nervous system ; the other, upon a fulness of the vessels of, and extravasation into the brain.

Symptoms. The paroxysms occur at intervals, like labour pains, growing more frequent as the disease continues. If labour has not commenced, it shortly does ; the os uteri dilates, and, if life is not previously destroyed, the child is expelled. So violent is the action of the uterus, that the child has actually been expelled after the death of the mother. The fit commences with a hissing, and catching in the breathing ; the patient stretches herself out, and the struggling begins, which is so powerful, that women, previously weak, have been so convulsed, as

to shake the whole room, and to resist the coercive powers of many attendants. Some, indeed, are utterly unmanageable. The distortion of the countenance is beyond conception; nothing, indeed, bears any resemblance to its deformity; and the rapidity with which the eyes open and shut, and the sudden contortions of the mouth, beggar all description. After this has continued for some time, the woman foams at the mouth, and snores like a person in apoplexy. These symptoms are closed by a comatose sleep, out of which she awakes perfectly unconscious of what has happened. But another fit soon comes on, and goes through a similar course. The mind is not impaired during the remissions, until the disease has continued some time. A purple, and dark colour of the skin is observable during the fit.

Treatment. In that species arising from fulness of the brain, it is often in our power to check the complaint in the onset. If, then, a pregnant woman should complain of great fulness of the head, giddiness, imperfect vision, and a sensation of weight when she stoops forward, we may suspect the probability of convulsions coming on. We should, in such a case, draw blood from the arm or jugulars; repeating the operation, if the symptoms continue; also administer purgatives, and adopt the antiphlogistic regimen. But when puerperal convulsions have actually commenced, the same treatment of copious blood-letting, &c. must be doubly enforced. The head should be shaven, and covered with a blister, and every sort of stimuli, bodily and mental, strictly prohibited. In that species depending upon irritation, the same treatment will be applicable, differing only, in the amount of the bleeding. Leeches, and cupping-glasses to the head, are useful; also opium, internally, to relieve irritation. If we fear the effect of the opium upon the brain, we may dissolve six grains and exhibit in a glyster. Pediluvium, and the warm bath, may be tried; also antispasmodics, as musk, ether, camphor, and blistering the legs, especially if the case is protracted.

In all cases, if the woman is not delivered, we are to effect delivery, by introducing the hand as soon as the os uteri begins to dilate, and extracting the foetus by the feet; avoiding, of course, any improper haste or violence. Dr. Denman says, that he has seen a patient relieved from that state of irritation just preceding the fit, by dipping feathers into water, and dashing them over her face. This roused her, and interrupted its progress. The plan may be improved upon, by throwing a larger quantity of water over her head and face, when the hissing and catching of

the breath is coming on. All cases of plethora, in pregnant women, should be immediately subdued by bleeding, purging, and low diet. *Consult Cases by Mr. Chevalier, in Med. Chirurg. Trans. Denman's Introduction to Midwifery.*

CONVULSIONS IN CHILDREN. These are either idiopathic, or symptomatic. When symptomatic, they mostly depend upon acrid matter, or wind in the primæ viæ, teething, worms, repelled eruptions, small-pox, &c. Young and irritable infants are the most liable. Convulsions in children, except in cases of small-pox, are always to be regarded as dangerous, more particularly when the recurrence of the paroxysms are frequent, more so than if the fits are severe, with longer intervals.

Treatment. The exciting cause, whatever it may be, we are to remove immediately. If it be in the stomach and bowels, gentle emetics, and cathartics, followed by carminatives, together with absorbents and alkalies if acidity prevails. If teething be the cause, the gums must be lanced, and the operation repeated occasionally, until the teeth come through; if from worms, give anthelmintics; if from repelled eruptions, blisters behind the ears, warm bath, and cordials internally; if from small-pox, free exposure to fresh cool air; if from debility, wine, cordials, and stimulants, and glysters containing a few drops of sal-volatile.

But if convulsions are not preceded by any of the above named symptoms, we may regard them as idiopathic, and apply blisters to the head or stomach, open the bowels, use pediluvium, frictions upon the spine of ammoniated liniments, &c. apply cold lotions to the head. If convulsions come on at the birth of the child, the head has probably suffered compression during its passage through the pelvis. In this case we should suffer the naval string to bleed a little, or apply leeches to the temples. *Consult Drs. Armstrong and Underwood on Diseases of children. Clarke's Commentaries on do. Heberden.*

INWARD FITS, spoken of by Dr. Armstrong, are not always confined to the first month. They begin as follows: The child appears as if asleep, the eye-lids not quite closed, the eyes frequently twinkle, and are turned up. There is a tremulous motion of the muscles of the face and lips, which sometimes produces a smile or laugh; the respiration occasionally stops for a short time; the nose is pinched up, and there is a circle around the mouth and eyes, which is often livid, but transient; the child starts as disturbed in the slightest manner, when it struggles until it is relieved by a discharge of wind from the stomach, or by vomiting or crying. Dr. Armstrong recommends the ex-

hibition of antimonial wine in small doses, and not to allow the child to sleep too long; and when the smile appears coming on, to employ frictions, on the back and belly, to favour expulsions of wind. Laxatives, and carminatives, are also useful. Those cases which have fallen under my own observation, have been much more formidable than represented by Dr. Armstrong. Blisters and anodynes were useful. *Consult Dr. Armstrong and Underwood on diseases of children.*

COPAIBA. The balsam. Stimulant, diuretic; useful in gonorrhœa, leucorrhœa, gleet, &c. ℞xx to xxx.

COPPER. *Cuprum.* *Cupri sulphas.* (blue vitriol.) Tonic, gr. $\frac{1}{2}$ to gr. 1; emetic, gr. ij. to x. Externally escharotic. *Cupri sabacetas*, (verdigris,) emetic, gr. $\frac{1}{8}$ to $\frac{1}{2}$. Externally detergent and escharotic. *Cupri ammoniaretum*, tonic, gr. $\frac{1}{2}$ to gr. 5. *Cupri ammoniaretoli liquor*, detergent wash, also applied when diluted, to specks on the cornea. *Cupri sulphatis liquor*, useful as a styptic, when conveyed up the nostrils in epistaxis. *Cupri subacetatis preparata*; used in the formation of other preparations. *Unguentum cupri subacetatis*, detergent, also used, when lowered one half with lard, for chronic ophthalmia.

CORIANDEE. *Coriandrum.* The seeds. Carminative, stimulant, ℞i. to ℞i.

CORNEA. See EYES.

CORNS. *Clavis.* A corn is a hardened portion of skin on the feet or toes, caused by the pressure of tight shoes. They are sometimes superficial and moveable, and are then but little painful, and easily removed; but when extending deep into, and attached to the cellular membrane, they are more troublesome, and the continual pressure upon them, keeps up a degree of inflammation.

The temporary treatment of corns, is that of cutting them, taking care to avoid exciting pain, or causing them to bleed. But to accomplish a radical cure, it is necessary to wear large soft shoes, such as velvet, or wash leather; and to walk and stand as little as possible. The corn is to be rubbed with some soft ointment, twice daily, and then covered with soap plaster. In addition to these means, the foot should be, morning and evening, bathed for half an hour in warm water, well rubbed, and the white pulpy outside scraped off; taking care not to give pain. In this way the corn will disappear in ten or twelve days.

The following is a good corn plaster. R. Gum, ammoniac. Cera flavæ, an ℞ij. Cupri subacetatis, ℞vi. Melt the gum and the wax together, then add the verdigris, stirring the mixture till cold. There is a very good me-

mechanical mode of treating corns, when the person cannot confine himself. Eight or twelve pieces of linen smeared with any soft ointment, and an aperture cut in the middle of each, exactly adapted to the size of the corn, are to be laid over each other, and so applied, that the corn is to lie in the opening, in such a manner that it cannot be pressed upon by the shoe. Should the corn be in the sole of the foot, it is only necessary to put into the shoe a false sole of leather or cork, in which a hole is cut, corresponding to the situation, and shape of the induration. Corns shortly go off under this treatment. (*See S. Cooper's Surg. Works.*)

CORPULENCE. *Polysarcia.* An accumulation of fatty matter about the omentum, mesentery, &c., causes the abdomen to be so much enlarged, as to obstruct respiration; and the same occurrence about the heart and large vessels, impedes the circulation. Hence, the weakness and slowness of the pulse observable in this disease. But when the whole fabric is charged with fat, the muscular, nervous, and vascular systems, are so far impeded in their operations, as to produce somnolency, apoplexy, and death. The *causes* of obesity are, indulgence in rich nutritious food and fermented liquors, indolence, ease and tranquillity of mind, &c. In Great Britain there is a general predisposition to corpulence, caused, probably, by the use of malt liquors, and the temperateness of the climate.

Treatment. Medicine is only useful in obviating any particular symptom which may arise. The superabundant fat is to be disposed of, by gradually lessening the quantity and quality of the food; by using daily, and active exercise; by taking only a few hours sleep, and rising early in the morning. To these means may be added, pressure over the abdomen, by bandages, or a laced waistcoat. These remedies are to be followed until the object is accomplished. Diaphoretics, diuretics, alkalies, and acids, are frequently taken, but they endanger permanent injury to the digestive functions. The practice of taking large quantities of vinegar by young women, is particularly hurtful. Consult *Wadd and Flemyng on Corpulency. Bateman, in Rees's Cyclopædia.*

COUGH. See CATARRH.

COUGH---HOOPING. *Pertussis.* This disease is characterized by a convulsive cough, interrupted by a full, sonorous inspiration, returning by fits, that are usually terminated by vomiting, or expectoration. It occurs but once during life, and that during childhood. It is communicated by specific contagion. It is also epidemic

and like other epidemics, possesses the power of infecting the human body through some unknown atmospheric influence without the agency of contagion. But when the morbid action, (however produced,) is set up in the system, the paroxysm, which constitutes its peculiar phenomenon, is repeated at uncertain intervals, and without evident cause. The paroxysms, may also be induced by certain exciting causes, as violent exercise; a full meal; improper food; inhaling dust, smoke, &c.; emotions of the mind. It appears in its mildest form in the summer season, and in warm climates.

Symptoms. Pyrexia, cough, and hoarseness, resembling catarrh, which continue one or two weeks, when the cough becomes convulsive, attended with a peculiar whooping inspiration, clearly denoting the disease. The coughing and sonorous inspiration continue for some minutes, when they terminate either by vomiting, or expectoration. This constitutes the paroxysm. The child expresses a desire for food, and returns to its amusements until another fit comes on, which goes through the same process. Having arrived at its height, it continues some weeks longer, and then gradually abates, though, in some cases, it is protracted for several months, and even a year. The cough moderates as soon as the expectoration becomes free, also when attended with hemorrhage from the nose. It is rarely fatal, except in very young children, when it may cause suffocation or apoplexy. It sometimes, too, predisposes the patient to asthma and phthisis. Its proximate cause is a viscid phlegm in the bronchiæ, trachea, &c. adhering so tenaciously to those parts, that it is expectorated with great difficulty.

Treatment. The indications are; 1st, to moderate the violence of the disease. 2d, to stop its progress when, in advanced stage, it seems to be kept up from habit merely, or irritation. The first is answered by bleeding generally, or by applying leeches to the neck or breast, if the catarrhal symptoms and paroxysms are violent; by emetics, and nauseating medicines, particularly the tartrite of antimony; by keeping the bowels freely open; by blisters to the neck and chest; by diaphoretics and colchicum; by a moderate diet; by inhaling warm steam; by the use of the warm bath and pediluvium. Some place confidence in exciting a slight degree of strangury, by exhibiting the tincture of cantharides; others apply stimulating liniments to the stomach and spinal column, to act on the principle of counter-irritation. The acetate of lead, in small doses, is also advised. Dr. Parsons (see

Med. Chirurg. Trans. Art. 3d.) recommends the following for a child two years old. R. Tr Opii M. i. Vin. Ipecacuanha M. v. Sod. Carb. gr. ij. M. to be made into a draught with syrup, and given every fourth hour: the stomach to be previously evacuated with an emetic. Alkalies are generally considered useful. The *second* indication is accomplished by antispasmodics, as musk, castor, camphor, opium, hemlock, hyoscyamus, and more particularly prussic acid; by tonics, if the child should appear to suffer from debility, as the mineral acids, wine, nutritive food, air, exercise, and warm clothing; whatever is found to be an exciting cause of the cough must be avoided. Consult *Sydenham's, Fothergill's, and Percival's Works. Armstrong and Underwood on Diseases of Children. Watt on Chin Cough. Bateman in Rees' Cyclopædia.*

COWHAGE. *Dolichos.* The bristles of the pod. Anthelmintic, is supposed to act upon the worm mechanically. Dose, a tea spoonful, or two, of syrup, or molasses, thickened with the bristles.

COUP DE SOLIEL, or *sun-stroke.* A species of apoplexy, caused by exposure to the sun in hot climates.

COW-POX. See POX, COW.

CRAMP. Some persons are liable to spasmodic affection of the muscles of the legs, fingers, diaphragm, stomach, &c. after long vomiting. These spasms usually go off by frictions with the hand, or any common liniment, or by standing bare-footed on a cold floor. When situated in the stomach, opium, oil of peppermint, ether, &c. will be proper. See *Tetanus.*

CRAMPS in Pregnant Women---are frequent during the latter months. They generally attack the muscles of the legs and thighs, and are relieved by the above treatment.

CRANES-BILL. *Geranium.* The root. Astringent, gr. xx. to xxx. An indigenous substitute for kino and catechu.

CROUP. See CYNANCHE TRACHEALIS.

CRETINISM. This disease is prevalent in the deep vallies of the Alps. It is characterized by idiotism; diminished stature; sickly complexion; prominent lips and eyelids; looseness and flaccidity of the skin and muscles; enlargement of the abdomen, and different glands of the body; of the joints, and goitre or Bronchiocele. It has been supposed to be produced by snow water; but this is not true; neither is it necessarily connected with goitre, for it may exist with, or without this affection. It is supposed to be an excessive degree of rickets, caused by the humidity of the atmosphere, arising from the water-falls in the vicinity of the Alps, particularly Switzerland. See *Rick-*

ets, under Bones. Consult Dr. Reve's Paper on Cretinism. Edin. Med. and Surg Jour. vol. v. p. 31. A. Burns on Surg. Anat. of the Head and Neck, p. 192.

CRUSTA, or CRUSTEA LACTEA. See ERUPTIONS.

CUBEBS. *Cubeba.* The fruit. Stimulant. This article has lately been recommended as a specific in gonorrhœa, in doses of ʒi. of the powder, thrice, daily.

CUTANEOUS DISEASES.

CUTANEOUS DISEASES. The following is the valuable arrangement of Willan and Bateman. See "A Practical Synopsis of Cutaneous Diseases according to the arrangement of Dr. Willan, by Thomas Bateman, M. D. F. R. S. London, 1817." The same is also to be found in "A Practical System of Nosology. By David Hosack, M. D. F. R. S. L. & E. New-York, 1821," from which the definitions are extracted.

ORDER I. PAPULÆ (PIMPLES.)

Papulæ, or pimples, appear to originate in an inflammation of the papillæ of the skin, by which they are enlarged, elevated, and indurated, and made to assume more or less of a red colour. Sometimes even a slight effusion of lymph takes place, which gives a vesicular appearance to several of the papulæ; but the fluid is re-absorbed without breaking the cuticle, and they terminate for the most part in scurf.

GENUS I. STROPHULUS. Comprehends several papular affections, peculiar to infants; known under the names of *red gum, white gum, tooth rash, &c.*

Species or Varieties.

STROPHULUS.	{	1. S. Intertinctus (red gum, or gown.)
		2. S. Albidus.
		3. S. Confertus (tooth rash.)
		4. S. Volaticus. 5. Candidus.

GENUS II. LICHEN. An extensive eruption or papulæ, affecting adults; connected with internal disorder; usually terminating in scurf; recurrent, not contagious; embracing *letters, ring worms, prickly heat, &c.*

- LICHEN. { 1. L. Simplex. 2. L. Pilaris.
3. L. Circumscriptus. 4. L. Agrinus.
5. L. Lividus. 6. L. Tropicus.
7. L. Urticatus.

GENUS III. PRURIGO. Severe itching, accompanied by an eruption of papulæ of nearly the same colour with the adjoining cuticle. Affects the whole surface of the skin, as well as some parts of the body locally.

- PRURIGO. { 1. P. Mitis. 2. P. Formicans.
3. P. Senilis.

ORDER II. SQUAMÆ (SCALES.)

Opaque and thickened laminæ of the cuticle, called scales; commonly produced by some degree of inflammation of the true skin, over which they are formed; occasionally, the cuticle alone, or with the rete mucosum, appears in a morbid state.

GENUS I. LEPRO. Scaly patches, of different sizes, but having always nearly a circular form.

- LEPRO. { 1. L. Vulgaris. 2. L. Alphoides.
3. L. Nigricans.

GENUS II. PSORIASIS. More or less roughness and scalliness of the cuticle, with a redness underneath; sometimes the eruption diffuse and continuous; sometimes in separate patches, of various sizes, but of an irregular figure, without the elevated border, the inflamed margin, and the oval or circular outline of the leprous patches; the skin often divided by rhagades or deep fissures. It is commonly accompanied by some constitutional disorder, and is liable to cease and return at certain seasons; seldom or never contagious.

- PSORIASIS. { 1. P. Guttata. 2. P. Diffusa.
(Tetter.) { 3. P. Gyrata. 4. P. Inveterata.

GENUS III. PITYRIASIS. A very superficial affection, characterized by irregular patches of thin scales, which repeatedly exfoliate and recur, but which never form crusts, nor are accompanied with excoriations; not contagious.

- PITYRIASIS. { 1. P. Capitis (dandruff.) 2. P. Rubra.
3. P. Versicolor. 4. P. Nigra.

GENUS IV. IHTHYOSIS. Characterized by a thickened, hard, rough, and, in some cases, almost horny texture of the integuments of the body, with some tendency to scalliness, but without the deciduous exfolia-

tions, the distinct and partial patches, or the constitutional disorder, which belong to lepra and psoriasis.

ICTHYOSIS. { 1. I. Simplex. 2. I. Cornea.

ORDER III. EXANTHEMATA. (RASHES.)

Patches of superficial redness of the skin, of various extent and intensity, occasioned by an unusual determination of blood into the cutaneous vessels, sometimes with partial extravasation. Some are contagious, others not; some are always febrile, others not manifestly attended with fever; some continue for a definite time, others are of an uncertain duration.

GENUS I. RUBEOLA. (*Measles.*) The rash appears usually on the fourth, but sometimes on the third, fifth, or sixth day of a febrile disorder, and after a continuance of four days, gradually declines with the fever. The disease commences from ten to fourteen days after the contagion has been received, and appears under three varieties of form

RUBEOLA. { 1. R. Vulgaris.
2. R. Sine Catarrho.
3. R. Nigra.

GENUS II. SCARLATINA. (*Scarlet fever.*) Characterized by a close and diffuse efflorescence, of a high scarlet colour, which appears on the surface of the body, or within the mouth and fauces, usually on the second day of fever, and terminates in about five days. Propagated by a specific contagion, which usually shows its effects within five or six days after exposure. Like rubella, it affects individuals but once during life.

SCARLATINA. { 1. S. Simplex. 2. S. Anginosa.
(*Scarlet Fever.*) { 3. S. Maligna.

GENUS III. URTICARIA. (*Nettle Rash.*) Distinguished by those elevations of the cuticle which are usually denominated wheals. They have a white top, but are often surrounded with a diffused red margin. Not contagious.

URTICARIA. { 1. U. Febrilis. 2. U. Erythematosa.
3. U. Perstans. 4. U. Conferta.
5. U. Subcutanea. 6. U. Tuberosa.

GENUS IV. ROSEOLA. Roseola, a rose-coloured efflorescence, variously figured, without wheals or papulae; for the most part symptomatic, occurring in connection with different febrile complaints. Not contagious.

ROSEOLA.	{	1. R. Æstiva.	2. R. Autumnalis.
		3. R. Annulata.	4. R. Infantilis.
		5. R. Variolosa.	6. R. Vaccina.
		7. R. Miliaris.	

GENUS V. PURPURA. An efflorescence, consisting of small, distinct purple specks and patches, attended with general debility, but not always with fever. These specks and patches are *petechiæ*, *ecchymomata*, or *vibices*, occasioned, not as in the preceding exanthemata, by an increased determination of blood into the cutaneous vessels, but by an extravasation from the extremities of these vessels, under the cuticle;

PURPURA.	{	1. P. Simplex.	2. P. Hæmorrhagica.
		3. P. Urticans.	4. P. Senilis.
		5. P. Contagiosa.	

GENUS VI. ERYTHEMA. A nearly continuous redness of some portion of the skin, attended with disorder of the constitution, but not contagious; is commonly symptomatic, and occurs with much variety in its form; yet sometimes, like the roseola, it is a prominent symptom, and is therefore in like manner liable to be mistaken for the idiopathic eruption.

ERYTHEMA.	{	1. E. Fugax.	2. E. Læve.
		3. E. Marginatum.	4. E. Pupulatum.
		5. E. Tuberculatum.	6. E. Nodosum.

ORDER IV. BULLÆ.

Large and often irregular vesications, which discharge a watery fluid when they break; the excoriated surface sometimes covered with a flat yellowish or blackish scab, which remains till a new cuticle is formed underneath; sometimes it is converted into an obstinate ulcer.

GENUS I. ERYSIPELAS. A febrile disease, in which some part of the body is affected with heat, redness, swelling, and vesications. The tumour is soft, diffusive, and irregularly circumscribed, and not accompanied by throbbing or acute pain. The last mentioned circumstances distinguish the tumour of erysipelas from that of phlegmon; and the presence of tumour, together with vesication, distinguishes the disease from erythema.

ERYSIPELAS.	{	1. E. Phlegmonodes.	2. E. Œdamatodes.
		3. E. Gangrænosum.	4. E. Erraticum.

GENUS II. PEMPHIGUS. An acute disease, characterised by an eruption of phlyctænæ or vesications with inflamed bases, appearing in succession on different parts of the body, and sometimes in the mouth. It differs from

erysipelas in its progress and duration, but it is more particularly distinguishable from that disease, as it does not exhibit any tumefaction or redness of the parts on which the vesications appear.

PEMPHIGUS. { 1. P. Vulgaris. 2. P. Contagiosus.
3. P. Infantilis.

GENUS III. POMPHOLYX. An eruption of *bul-
læ*, without any inflammation round them, and without fever.

POMPHOLYX. { 1. P. Benignus. 2. P. Diutinus.
3. P. Solitarius.

ORDER V. PUSTULÆ. (PUSTULES.)

Pustules originating from an inflammation of the skin, and the consequent partial effusion of purulent matter under the cuticle, by which the latter is elevated into small circumscribed tumours; often terminating in a scabby incrustation, varying in hardness according to the various tenacity of the contained fluid; and sometimes superficial ulceration; some contagious, others not; some acute, others chronic.

GENUS I. IMPETIGO. Small pustules, often irregularly circumscribed, producing but a slight elevation of the cuticle, and terminating in a laminated scab. Sometimes confluent, and after the discharge of pus, pour out a thin watery humour, which frequently forms an irregular incrustation. Not characterized by fever, nor contagious, nor communicable by inoculation.

IMPETIGO. { 1. I. Figurata. 2. I. Sparsa.
3. I. Erysipelatodes. 4. I. Scabida.
5. I. Rodens.

GENUS II. PORRIGO. A small acuminate pustule, containing a straw-coloured matter, having the appearance and nearly the consistence of strained honey, succeeded by a thin brown or yellowish scab; sometimes by a pustule, flatter and not acuminate, and containing more viscid matter; the base often irregular, and slightly inflamed; this succeeded by a yellowish transparent and sometimes cellular scab, like a honey comb, whence it has obtained the name of *favus*. Contagious.

PORRIGO. { 1. P. Larvalis. 2. P. Ferfurans.
3. P. Lupinosa.
4. P. Scutulata (*Ringworm of the scalp.*)
5. P. Decalvans. 6. P. Favosa.

GENUS III. ECTHYMA. An eruption of the *pustular* kind, of a large size, raised on a hard circular base, of a vivid red colour, and succeeded by a thick hard dark-

coloured scab ; usually distinct, arising at a distance from each other, seldom very numerous, unaccompanied with ever, and not contagious.

ECTHYMA. $\left\{ \begin{array}{ll} 1. E. \text{ Vulgare.} & 2. E. \text{ Infantile.} \\ 3. E. \text{ Luridum.} & 4. E. \text{ Cachecticum.} \end{array} \right.$

GENUS IV. VARIOLA. (*Small Pox.*) An eruption of red papulæ, beginning on the third day of fever, and ending on the fifth ; these in the course of eight days suppurate, and at last fall off in crusts, often leaving depressed scars or little pits in the skin. Contagious.

VARIOLA. $\left\{ \begin{array}{l} 1. V. \text{ Discreta.} \\ 2. V. \text{ Confluens.} \end{array} \right.$

GENUS V. SCABIES. (*Itch.*) An eruption of pustules, or of small vesicles, which are subsequently intermixed with, or terminate in, pustules ; it is accompanied by constant and importunate itching, without fever, and contagious. It appears occasionally on every part of the body, the face only excepted, but more abundantly about the wrists and fingers, the fossa of the nates, and the flexures of the joints.

SCABIES. $\left\{ \begin{array}{l} 1. S. \text{ Papuliformis (Rank itch.)} \\ 2. S. \text{ Lymphatica (Watery itch.)} \\ 3. S. \text{ Purulenta (Porley itch.)} \\ 4. S. \text{ Cachectica.} \end{array} \right.$

ORDER VI. VESICULÆ. (VESICULES.)

Characterized by a small orbicular elevation of the cuticle, containing lymph, which is sometimes clear and colourless, but often opaque and whitish or pearl-coloured. It is succeeded either by scurf, or by a laminated scab.

GENUS I. VARICELLA. (*Chicken Pox, Swine Pox, &c.*) The vesicle bearing a close resemblance to the pustule of variola, but seldom suppurates ; in a few days ends in crusts, without leaving any scar ; very little fever.

VARICELLA. $\left\{ \begin{array}{ll} 1. V. \text{ Lenticularis.} & 2. V. \text{ Conoidalis.} \\ 3. V. \text{ Globata (Hives.)} \end{array} \right.$

GENUS II. VACCINIA. (*Cow Pox.*) The characteristic of this eruption is a semi-transparent pearl-coloured vesicle, with a circular or somewhat oval base, its upper surface, until the end of the eighth day, being more elevated at the margin than in the centre, and the margin itself being turgid, shining, and round, so as often to extend a little over the line of the base. This vesicle is filled with clear lymph, contained in numerous little cells, that communicate with each other. After the eighth or ninth day

from the insertion of the virus, it is surrounded by a bright red circumscribed areola, which varies in its diameter, in different cases, from a quarter of an inch to two inches, and is usually attended with a considerable tumour and hardness of the adjoining cellular membrane. This areola declines on the eleventh or twelfth day; the surface of the circle then becomes brown in the centre, and the fluid in the cells gradually concretes into a hard rounded scab, of a reddish brown colour, which at length becomes black, contracted, and dry, but is not detached till after the twentieth day from the inoculation. It leaves a permanent circular cicatrix, about five lines in diameter, and a little depressed, the surface being marked with very minute pits or indentations, denoting the number of cells of which the vesicle had been composed.

GENUS III. HERPES. A vesicular disease, which, in most of its forms, passes through a regular course of increase, maturation, and decline, and terminates in about ten, twelve, or fourteen days. The vesicles arise in distinct but irregular clusters, which commonly appear in quick succession, and they are set near together upon an inflamed base, which extends a little way beyond the margin of each cluster. The eruption is preceded, when extensive, by considerable constitutional disorder, and is accompanied by a sensation of heat and tingling, sometimes by severe deep-seated pain in the parts affected. The lymph of the vesicles, which is at first clear and colourless, becomes gradually milky and opaque, and ultimately concretes into scabs; but, in some cases, a copious discharge of it takes place, and tedious ulcerations ensue. Not contagious.

HERPES.	{	1. H. Phlyctænodes.
		2. H. Zoster (<i>Shingles.</i>)
		3. H. Circinatus (<i>Ring-worm.</i>)
		4. H. Labialis. 5. H. Præputialis.
		6. H. Iris.

GENUS IV. RUPIA. Characterized by an appearance of broad and flattish vesicles in different parts of the body, especially upon the extremities; they do not become confluent; they are slightly inflamed at the base, slow in their progress, and succeeded by an ill-conditioned discharge, which concretes into thin and superficial scabs; they are easily rubbed off, and presently regenerated.

RUPIA.	{	1 V. Simplex. 2 V. Prominens.
		3 V. Escharotica.

GENUS V. MILIARIA. Characterized by a scattered eruption of minute round vesicles, about the size of millet seeds, surrounded by a slight inflammation or rash, and appearing at an uncertain period of febrile disorders. The eruption is usually preceded by profuse perspiration, a sense of great heat, with a prickling and tingling in the skin. Most abundant upon the neck, breast, and back, sometimes in irregular patches, and sometimes more generally diffused. During the progress of the disease, aphthous vesicles and sloughs sometimes appear in the mouth and fauces.

GENUS VI. ECZEMA. The eczema is characterized by an eruption of small vesicles on various parts of the skin, usually set close or crowded together, with little or no inflammation round their bases, and unattended by fever. Not contagious. Unless extensively diffused, not accompanied with any derangement of the constitution.

ECZEMA. { 1. E. Solare.
2. E. Impetiginodes.
3. E. Rubrum.

GENUS VII. APHTHA. (THRUSH.) The aphthæ, are small, whitish, or pearl-coloured vesicles, appearing on the tongue, the lips, and the interior of the mouth and throat, generally in considerable numbers, proceeding to superficial ulceration, and usually terminating by an exfoliation of whitish crusts.

APHTHA. { 1. A. Lactantium.
2. A. Adultorum.
3. A. Anginosa

ORDER VII. TUBERCULA. (TUBERCLES.)

Tubercles, small, hard, superficial tumours, circumscribed and permanent, or suppurating partially.

GENUS I. PHYMA.

PHYMA. { 1 P. Terminthus. 2. P. Epinycthus
3. P. Furunculus (*Boil.*)
4. P. Carbuncle.

GENUS II. VERRUCA. Verruca denotes the cuticular excrescences, usually called *warts*.

GENUS III. MOLLUSCUM. This form of tubercular disease is characterized by numerous tubercles, of slow growth and little sensibility, and of various sizes, from that of a vetch to that of a pigeon's egg. These contain an atheromatous matter, are of various forms, some sessile, globular, or flattish, others attached by a neck, and pen-

dulous. These tubercles are apparently unconnected with any constitutional disorder, have no tendency to inflammation or ulceration, but continue through life.

GENIUS IV. VITILIGO. Vitiligo, characterised by the appearance of smooth, white shining tubercles, sometimes in particular parts, as about the ears, neck, and face, and sometimes over nearly the whole body, intermixed with shining papulæ. In some cases they reach their full size in the space of a week, (attaining the magnitude of a large wart,) and then begin to subside, becoming flattened to the level of the cuticle in about ten days; in other instances, they advance less rapidly, and the elevation which they acquire is less considerable. But in these cases they are more permanent; and, as they gradually subside to the level of the surface, they creep along in one direction, as, for example, across the face or along the limbs, chequering the whole superficies with a veal appearance. All the hairs drop out where the disease passes, and never sprout again; a smooth shining surface, as if polished, being left, and the morbid whiteness remaining through life. The eruption never goes on to ulceration.

GENUS V. ACNE. An eruption of distinct, hard, inflamed tubercles, sometimes permanent for a considerable length of time, and sometimes suppurate very slowly and partially. They usually appear on the forehead, temples, and chin; sometimes on the neck, shoulders, and upper part of the breast, but never descend to the lower parts of the trunk, or to the extremities; occur almost exclusively in persons of the sanguine temperament; common to both sexes, but the most severe forms are seen in young men.

ACNE.	{	1. A. Simplex.	2. A. Punctata.
		3. A. Indurata.	
		4. A. Rosacea (<i>Pimpled Face.</i>)	

GENUS VI. SYCOSIS. Sycosis consists of an eruption of inflamed but not very hard tubercles, occurring on the bearded portion of the face, and on the scalp in adults, and usually clustering together in irregular patches.

SYCOSIS.	{	1. S. Menti.
		2. S. Capillitii.

GENUS VII. LUPUS. Tubercular affections, especially about the face, commonly ending in ragged ulcerations of the cheeks, forehead, eye-lids, and lips and sometimes occurring in other parts of the body, where they gradually destroy the skin and muscular parts to a considerable depth. Sometimes the disease appears in the cheek circularly, or in the form of a sort of ring-worm, destroying the substance, and leaving a deep and deformed cicatrix.

GENUS VIII. ELEPHANTIASIS. The elephantiasis is principally characterised by the appearance of shining tubercles of different sizes, of a dusky red or livid colour, on the face, ears, and extremities, together with a thickened and rugous state of the skin, a diminished or total loss of its sensibility, and a falling off of all the hair; except that of the scalp. During the continuance of the disease, great deformity is gradually produced.

GENUS IX. FRAMBOESIA. (Yaws.) After several days of slight febrile action, minute protuberances appear on various parts of the skin, at first smaller than the head of a pin, but gradually enlarging in some cases to the diameter of a sixpence, and of the largest size, in the face, groins, axillæ, and about the anus and pudenda. New eruptions appear in different places, while some of the earlier ones dry off. When the cuticle is broken, a foul crust is formed on the surface, from which red fungus excrescences often spring up, which attain different magnitudes, from that of a small raspberry to that of a large mulberry, which fruit they somewhat resemble, from their granulated surfaces. They never suppurate kindly, but generally discharge a sordid glutinous fluid, which forms an ugly scab round the edge of the excrescence, and covers the upper part of it with white sloughs. When they appear in any part of the body covered with hair, this gradually changes from black to white, independently of the white incrustation from the discharge. They leave no depression. Contagious.

ORDER VIII.

MACULÆ. (Spots.) Maculæ, or spots, comprise those discolourations of the skin which are permanent, and most of which are the result of an alteration of the natural texture of the part. It comprehends, therefore, several varieties of connate and acquired disfigurements of the skin some of which are not capable of being removed, and most of them are removable only by surgical means.

GENUS I. EPHELIS. (Freckles.) Ephelis denotes not only the little yellow *lentigines* which appear on persons of fair skin, and the larger brown patches which arise from exposure to the direct rays of the sun; but also those large dusky patches, which are very similar in appearance, but occur in other parts of the surface which are constantly covered.

GENUS II. NÆVUS, SPILUS, &c. Nævus, pilus, &c. include the various congenital excrescences and discolourations of the skin. They exhibit many peculiarities of form, magnitude, colour, and structure, and are seen in almost every part of the surface of the body in different

instances. Some of them are merely superficial, or stain like spots, and appear to consist of a partial thickening of the rete mucosum, sometimes of a yellow or yellowish brown, sometimes of a bluish, livid, or nearly black colour. To these the term *spilus* has been more particularly appropriated. Others again exhibit various degrees of thickening, elevation, and altered structure of the skin itself, and consist of clusters of enlarged and contorted veins, finely anastomosing, and forming little sacks of blood. These are sometimes spread more or less extensively over the surface, and sometimes they are elevated into prominences of various forms and magnitude. Occasionally these marks are nearly of the usual colour of the skin, but more commonly of a purple red colour.---Consult *Turner, Plenck, Willan, and Wilson, on Diseases of the Skin.*

CYNANCHE TONSILLARIS, or *common inflammatory sore throat*. This disease consists of a swelling and inflammation of the tonsil glands, uvula, and mucous membrane of the fauces generally; causing difficulty of breathing and deglutition.

Symptoms. It begins with soreness, heat, redness, and pain in the throat, with difficulty in swallowing, soon followed with copious excretion of mucus and saliva; rigours and flushings terminating in fever of the synocha or inflammatory type. The tongue is furred, and, as the disease advances, becomes brown; the eyes and cheeks are florid, and sometimes there is pain in the ear and deafness. These symptoms go on increasing, when, if both tonsils are attacked, there is great risk of their approximating, and endangering suffocation. The disease terminates in *resolution*, denoted by a gradual abatement of all the symptoms accompanied with a diaphoresis, copious pyralism, or diarrhoea about the fifth day: or in *suppuration*, which is preceded by a sense of pulsation and slight rigors, with less pain and redness; the matter being discharged down the throat or through the mouth, giving immediate relief to the patient: or in *gangrene*, which is marked by the parts losing their florid colour, becoming flaccid, brown, or livid, attended with a small, weak, and irregular pulse; the countenance cadaverous, with clammy sweats; coldness of the extremities; coma; death. In the suppurative stage there are sometimes several small abscesses, having the appearance of white specks or sloughs, which are not dangerous, so long as they retain their whiteness, and do not become brown or livid.

Causes. Cold, applied in various ways; blowing wind instruments; irritating substances applied to the throat; suppression of accustomed discharges. It occurs chiefly to young plethoric persons, in cold climates, while cynanche maligna attacks weakly irritable persons in warm climates. It also farther differs from the cynanche maligna, as well as from scarlatina anginosa, in the brightness of its colour, the form of the concomitant fever, and the absence of ulceration, putridity, and contagion.

Treatment. The indications are the same as in inflammation in general, and are to be fulfilled by bleeding generally, and topically by leeches to the neck, and scarifying the tonsils with a lancet; by emetics, purges, clysters, and diaphoretics; by blisters and liniments to the throat and back of the neck; by gargles composed of honey, vinegar, and tincture of myrrh, also the following. R. Plumb. acet. gr. x. Aq. Rosa f. 3 vi. M. to be used several times a day; by inhaling the steam of warm water, alone, or impregnated with vinegar or ether; by adopting the antiphlogistic regimen. If suppuration appears evident, it should be promoted by poultices and fomentations to the throat, and gargling with warm milk and water, exhibiting nutritious clysters. In some instances tracheotomy has been found necessary to prevent the patient from suffocating. Previous to which, however, we should exhibit an emetic, with a view of bursting the abscess, or we may admit a sufficient supply of air to the lungs, by introducing, through the nose and fauces to the trachea, an elastic gum catheter. (*See Tracheotomy.*) We should also attempt to evacuate the matter by puncturing the tumor with a lancet. Should there appear any tendency to degenerate into the malignant form, or to terminate in gangrene, stimulants and antiseptics will be proper. (*See Cynanche Maligna.*) A permanent induration and swelling of the tonsils will sometimes remain after the recovery, also a state of relaxation and debility with elongation of the uvula. Such cases are best treated by stimulating gargles, as a weak decoction of Cayenne-pepper, and if this fails, by removing the parts with the knife or scissors. (*See Tonsils, Diseases of.*)

CYNANCHE PHARYNGÆA, or *Inflammation of the Pharynx*. This disease differs from the preceding only in the seat of the inflammation being in the Pharynx, instead of the tonsil glands. It is attended with similar symptoms, and requires the same treatment.

CYNANCHE MALIGNA. *Putrid Sore Throat.* This disease differs from the two just mentioned by the concomitant fever being of the low typhoid type.

Symptoms. Shiverings, anxiety, nausea, heat, debility, oppression at the chest, stiffness of the neck, hoarseness, sore throat, fiery redness of the fauces, which soon changes to a dark red, interspersed with light coloured specks, though sometimes a large whitish stain is first observed, surrounded by a florid margin, which soon becomes an extensive slough. The tongue shortly becomes brown; the lips are beset with vesicles, and an acrid matter distils from the mouth and nostrils, excoriating the surrounding parts. There is sometimes a diarrhoea, which is so acrid as to excoriate the anus. The fever is of the typhoid type, with an evening exacerbation; the pulse is small, the strength prostrated, and there is also coma, delirium, and hemorrhage from the nose, ears, &c. Some cases are very rapid, the patient walking about till within a few hours of his death. On the second or third day from the attack, patches of a florid red colour appear upon the face and neck, which soon extend over the whole body as in scarlet fever, of which, in fact, this disease is only a different modification. After a few days this eruption declines with a desquamation of the cuticle. In fatal cases the slough in the throat becomes deeper, and ulceration pervades more or less the whole alimentary tube as well as the trachea. All the symptoms increase, which, with supervening gangrene, close the scene generally, by the seventh day, and sometimes earlier. The eruption, will sometimes suddenly recede, producing dropsical affections, convulsions and death. Such also has been the result, when they have suddenly changed and become livid. In this disease, as well as the two preceding, the inflammation extends, oftentimes, to the Eustachian tube, and produces deafness, by permanently obstructing it, or causing its destruction by ulceration. The salivary, as well as the other glands of the neck, are occasionally swelled and assume a dark colour.

Causes. A peculiar humid state of the atmosphere, poor diet, and other causes producing typhoid affections. It is often epidemic and always contagious, and is frequent in hot climates. It attacks, principally, children, in whom it is very fatal, also people of a weak relaxed habit. It is known from all other diseases by its typhoid symptoms, aphthous appearance of the fauces, and the eruption. *Favourable* symptoms are, moderate degree of fever, general diffused moisture, the eruptions continuing

florid, not much debility. The *unfavourable* are, the reverse of these, with putrescency, severe headach, the discharge from the nose and mouth ceasing, indications of gastritis or phrenitis, hiccup.

Treatment. The indications are, 1. to check or counteract the septic tendency, and to preserve the strength. 2. to wash off the acrid matter and to promote the separation of the sloughs from the fauces. 3. to allay urgent symptoms. The first is fulfilled, by evacuating the stomach and bowels with a mild emetic and cathartic, and afterwards exhibiting the cinchona-bark, capsicum, mineral acids, wine, spices; by allowing nutritious diet, as jellies, arrow-root, tapioca, &c. Should the acid produce griping, or the bark pass off by the bowels, opium may be added, or bark may be used in clysters, in the quantity of two or three drachms of the powder three or four times a day, adding opium, should it be evacuated too soon. The 2nd indication is answered by the use of stimulating and antiseptic gargles, as the infusion of Cayenne-pepper; (two table-spoonful of Cayenne and a tea-spoonful of salt in half a pint of boiling water, adding the same quantity of warm vinegar; to stand an hour and be strained; the same mixture may be also taken, in the quantity of two table-spoonful every half hour.) Mineral acids; (R. Acid. Muriat. f. ℥i. Decoct. Cinch. f. ℥vi. M.); port wine, spiced; myrrh; &c. With these the throat should be frequently washed, and where the patient, from debility or youth, is incapable of performing it himself, it may be applied, by means of a sponge fastened to the end of a spoon, or injected with an ivory syringe. Steam arising from hot vinegar and water may be frequently inhaled, and the room may be fumigated by throwing half an ounce of powdered nitre on a chafing-dish of live coals, and closing the windows and doors of the apartment; the room will soon be filled with a white vapour, which, after being suffered to remain a short time, should be duly removed by ventilation.---This is a good substitute for inhaling oxygen gas. The 3d indication is fulfilled by the use of sudorifics, if much fever should prevail, particularly the Dover's and antimonial powders, aided by pediluvium; by the effervescing draught and lanoanum, if vomiting be troublesome; by opium, kino, catechu, and other astringents, if diarrhoea prevails; by internal astringents, if passive hemorrhage comes on, as zinc, alum, &c. also styptics applied to the bleeding parts externally. Liniments and mustard-poultices may be applied to the throat and back of the

neck, but blisters are deemed unsafe. The room should be kept cool and frequently ventilated, and the patient's linen frequently changed. The feces should be immediately removed from the apartment and buried, or thrown into water. The attendants, to preserve themselves from the infection, may take capsicum, bark, &c. and use the capsicum gargle. The late Dr. Currie used the cold affusion, in this species of cynanche, with much success, under the same limitations as in typhus fever.

From the similarity between this disease and scarlatina maligna, probably the principles which Dr. Armstrong advances in the latter may be applicable in this also. See *Fever, Scarlet*. Consult *Fothergill's and Huxham's Works*. *Wilson on Febrile*, and *Willan on Cutaneous Diseases*. *Armstrong on Scarlet Fever*.

CYNANCHE TRACHEALIS. *Croup*. This is an inflammation of the membrane lining the trachea, larynx and bronchiæ of a peculiar kind, probably specific, throwing out an exudation, or lymph, in such quantities as totally to obstruct these passages and cause suffocation. This secretion is quite different from that produced in inflammation of mucous membranes generally, which by a law of nature, almost general, is pus. In the case now under consideration, the fluid exuded soon becomes consolidated, and forms a complete case for the trachea; the exudation then, probably, is analogous to adhesive albumen, or coaguable lymph, such as is ordinarily effused from the exhalants in common inflammation. The disease is attended with a stridulous sound in breathing or coughing, not unlike the crowing of a cock. It is attended with acute inflammatory symptoms; and chiefly attacks children, subsequently the disease is supposed to become spasmodic. It is epidemic, but not contagious.

Symptoms. Hoarseness; difficulty of breathing, soon becoming very laborious; short dry cough, attended with a peculiar stridulous noise; flushing of the face; the uvula, and velum pendulum palati swolen, with high degree of active fever. In coughing, the patient brings up portions of white phlegm with much difficulty, which is nothing more than the lymph before alluded to. It proves fatal, if not arrested, by the fourth or fifth day, sometimes much earlier, even in a few hours, causing death by suffocation.

Causes. Exposure to cold moist atmosphere, wetting the feet, neck, &c. epidemic prevalence. It is known from all other diseases, by the peculiar sonorous respiration. An early and free expectoration, with moderate symptoms

may be considered favourable ; the contrary unfavourable.

Treatment. All the remedies for the reduction of acute inflammation must be speedily put into requisition, such as bleeding, generally, and topically by applying leeches to the neck and throat, or opening the jugulars. The youth of the patient is not to be an obstacle to bleeding in this case. We are next to excite vomiting, sweating, and constant nausea, by exhibiting tartre of antimony ; purgatives, too, should quickly follow, and the antiphlogistic regimen be rigorously enforced. Blisters to the throat, chest, and back of the neck ; the warm bath, &c., all of which is to be persevered in until the inflammation is subdued. It is advisable to keep the patient in a posture nearly erect. In some obstinate cases, when emetics will not properly act, we may give a strong decoction of tobacco, until it produces some sensible effect. Tracheotomy is sometimes resorted to in order to extract the lymph which is mechanically obstructing the trachea, but as the lymph is existing in the bronchial tubes also, this operation is not to be depended on. The disease is, for the most part, too rapid to expect much benefit from salivation, as by some recommended. If we are led to suspect any spasmodic affection existing, it is to be relieved by blisters, warm bath, and antispasmodics. Consult *Home on Croup. Cheyne on Diseases of Children. Do. on Pathology of the Larynx. Baillie's Morbid Anatomy. Pelletan, Clin. Chirurg. Tom i. Rush, Med. Obs and Inq.*

CYNANCHE PAROTIDEA. *Mumps.* This chiefly affects children, is epidemic, and contagious.

Symptoms. Swelling and inflammation of the parotid and submaxillary glands on one or both sides of the neck, sometimes painful, and increasing so much in size as to produce difficulty of respiration and deglutition, accompanied with pyrexia. The symptoms continue till the fourth day, when they gradually decline. This disease is never dangerous, unless suddenly repressed, when fever and delirium may ensue, and now and then, extensive sloughing of the glands and adjacent cellular membrane. It is remarkable however, for its metastatic tendency to the breasts in females, and the testicles in males, which often become suddenly enlarged and inflamed, the affection of the glands in the neck disappearing. In such cases we are to give cooling purges of the neutral salts and senna, and apply oily liniments to the mammæ, in females ; while in the male we are to adopt the treatment laid down for the cure of *Hernia Humoralis*. (See Testicles,

Diseases of.) The general treatment of mumps is merely to keep the face and neck warm, and the bowels open. Bleeding, blistering the chest, &c. should the swellings suddenly recede, or the fever run high. *Consult Russell, Economy of Nature. Huxham de aure.*

CYNANCHE LARYNGÆA. *Inflammation of the Larynx* This is a very rare and fatal disease, so much so, that Dr. Baillie met with but three cases during twenty years practice, all of which ended fatally. Dr. Jackson, of Boston, says he has only met with one well marked case during a similar period, this proved fatal, notwithstanding bleeding, and other evacuations were resorted to as far as circumstances would admit. *See New England Jour. of Med. and Surg. Vol. 10. Consult Farr, in Med. and Chirurg. Trans. of the Medico. Chirurg. Soc. London, Vol. 3. Percival in do. Vol. 4. Wilson in do. Vol. 5. Blane do. Vol. 6. Lawrence do. Vol. 7. Baillie in Trans of a Society for the improvement of Med. and Chirurg. knowledge, Vol. iii. Armstrong's Practical Illustrations.*

CYSTITIS. See **INFLAMMATION OF THE BLADDER.**

CYSTOCELE. See **HERNIA OF THE BLADDER.**

DANCE OF ST. VITUS. See **CHOREA SANCTI VITI.**

DEAFNESS. *Paracusis.* Deafness is produced by various causes; is total, or partial; in one, or both ears, according to the cause producing it, and its extent. It arises from the following causes.

1. *Wounds of the external ear.* In this case the hearing is not more impaired, than as it is affected, by the loss of those convolutions which concentrate and convey sound into the meatus auditorius. This part may be injured, or totally lost, by the bites of horses, dogs, cuts of sabres, &c. In all such cases the part must be preserved if possible, and union attempted by the first intention. But if the ear is totally lost, or has sloughed away from syphilis, the effect of frost, or otherwise, the defect can only be supplied with an artificial ear, or the use of an ear trumpet.

2. *Malformation.* There are several varieties of this species of deafness, and when congenital, and the deformity exists in both ears, the sufferer is dumb also. *a.* The meatus auditorius, or passage leading down to the internal ear, may be *obstructed by a membrane*, at its orifice, or at any other part of its canal. This is to be remedied

by piercing the membrane with a sharp pointed bistoury, cutting away a portion of the membranous septum, and keeping the parts asunder by a tent until healed. If the obstruction exists low down in the passage, some prefer the application of caustic. When the obstruction consists of bone, the case is incurable. *b. Unusual smallness of the passage.* If this exists in the soft parts, it can be relieved by the use of tents and bougies to produce dilatation, as in cases of stricture; but if the narrowness exists in the bone, the case is beyond our reach. *c. Absolute cohesion of the meatus.* If cohesion is throughout its whole extent, it is incurable; but if only partial, it rests with the judgment of the surgeon to attempt to open it, by simple or caustic bougies. *d. Faulty shape of the meatus.* The natural curve of this tube, multiplies the sonorous rays and increases the sound, therefore, if it happens to be formed straight, the hearing is not perfect. The defect is to be remedied by substituting an artificial curvature, with a curved and conical tube placed outside the ear like a hearing-trumpet. The *acoustic instrument* invented by Deekers is also useful.

3. *Insects, worms, and other foreign bodies.* When worms exist in the ear, there is an acute pain, attended with convulsions and sometimes paralysis on that side, with other anomalous symptoms. They are always found subsequent to ulcerations in this part. Persons, therefore, suffering under ulceration of the ears, particularly in warm weather, should not go to sleep without stopping them up with a little lint or cotton, lest flies be attracted to the meatus and deposit their eggs. For the removal of these troublesome intruders, nothing is more efficacious than injecting an infusion of tobacco, mixed with olive oil. This destroys their vitality, when their remains will be spontaneously discharged, or may be extracted with a pair of forceps. Stones, bits of glass, &c. occasionally get into the ear, particularly with children. In such cases it will be proper to bring the patient to a strong light, to bring the curved passage of the meatus into a right line, by pushing the lower part of the ear upwards, and then extract the substance with a pair of forceps. But if the body is very large, we may break it first, with a strong pair of forceps, and extract the fragments piece-meal. In all cases we should previously inject a little oil.

4. *Obstruction of the meatus by hardened wax, or cerumen.* The existence of this is known by the patient complaining of noises and confused sounds, like the rustling of leaves, or rushing of waters, particularly during mastication. It

is easily relieved by injecting warm water into the meatus, and extracting the wax with a scoop or other convenient instrument.

5. *Purulent discharges, in consequence of syphilis, small pox, measles. &c.* If the suppuration is in the tympanum, the small bones of the ear are apt to be discharged, when incurable deafness will follow most generally. The meatus is subject to inflammation and suppuration, (See inflammation of the ear,) when the matter is evacuated between the auricle and the mastoid process, or into the meatus itself. In the latter instance, the opening is often too small, a fungus shoots out, and the part becomes fistulous. A perforation into the sinus, between the auricle and mastoid process now becomes necessary, to relieve the symptoms and prevent exfoliation. Frequently injecting warm water, and keeping the part warm is proper.

6. *Polypous excrescences.* These are to be removed with a ligature or curved bistoury; they are not frequent.

7. *Herpes of the meatus.* This affection diminishes the diameter of the passage, by thickening the membrane, as well as by inspissation of the matter secreted. It always yields to alteratives, and injections of a weak solution of nitrate of silver, or the oxymuriate of mercury, (one gr. to an ounce of water,) with the application of the ointment of nitrate of mercury.

8. *Obstruction of the Eustachian tube.* Deafness is caused in this way, in consequence of the air being excluded from the cavity of the tympanum, which is a necessary medium for the conveyance of sound to the portio mollis. It is caused by ulcerated sore throat, syphilitic ulcers, the descent of polypi from the nose into the throat, &c. The existence of obstruction, in this tube, is to be suspected, when a sort of crackling and fulness of the membrana tympani is not felt upon blowing strongly with the mouth and nose stopped, more particularly if the causes above stated have preceded it. It was Mr. Astley Cooper, who first suggested and adopted the plan of puncturing the membrana tympani, with a view of letting the necessary supply of air into the cavity, for the due conveyance of sound. This operation he performed, by puncturing the membrane at its interior part through the meatus, with a small curved trochar, probe, or stilet of a catheter. It has proved completely successful in a great number of cases, and the only difficulty is, that relapses will sometimes happen from the healing of the wound. This may, however, be frequently obviated, by repeating the operation, making the puncture larger, and afterwards cautiously ap-

plying to the punctured part, caustic carefully secured to the end of a bougie.

9. *Diseases of the labyrinth.* Mr. Saunders states, that all the diseases of the internal ear are nervous. Its seat being the portio mollis of the seventh pair of nerves or the surfaces on which its filaments are expanded. In other words this species of deafness is exactly analagous to amaurosis, and, like that, is often cured by low diet, frequent vomiting and purging, and restoring the digestive functions by alteratives. (See Amaurosis.) The symptoms enumerated by the patient, are noises in the ears, like murmuring of waters, the hissing of a boiling tea kettle, rustling of leaves, &c. Others complain of a violent pulsation, or beating, which is increased when the vascular action is increased by exertion or otherwise. Some species of nervous deafness are syphilitic, and may be removed by a course of mercury. Blisters and electricity, as well as issues and setons, in the vicinity of the ears, are proper. Mr. Cline, in one instance, found the cavity of the tympanum filled up with a caseous matter instead of the usual limpid fluid. Such a case of course is incurable. Paralysis may also cause deafness. Consult *Richerand's Nosographic Chirurgicale*, Tom. 2, p. 122, 3d edition. *A. Cooper in Philosophical Trans.* 1802. *Saunders on Anatomy and diseases of the Ear.* *S. Cooper's Surg. Dict.* *Curtis on the Ear.*

DELIRIUM. This is the generic term of the different forms of this disease. The sensations are not in relation with external objects, the ideas with present sensations, the judgment with present ideas: the judgment and ideas are involuntary. Ideas furnished by imagination intrude themselves in crowds, so that their analogy and difference cannot be seen. The sufferer takes a windmill for a man, a hole for a precipice, clouds for cavalry. Unable to command his attention, he is the sport of hallucination, unites incongruous ideas, adopts determinations and language contrary to his and society's usage. Sometimes he sees his delusion as soon as it is pointed out to him. Sometimes every thing around him strengthens it. If delirium is stronger than the senses' ordinary influence, he is not easily undeceived; becomes irritable. In the forms of delirium called mania, loquacity, carphology, somnambulism, it shows itself in the organs of motion, which are at rest in the form of ecstasy.---Every organ can act to produce delirium. It often follows great excitement of the passions. From acquaintance with all diseases in which delirium appears, we are to seek the cause of its va-

ieties, and the principles of cure. Its seat is unknown. Some people are delirious under the least febrile action ; and most dying people.

1. **FEBRILE DELIRIUM.** There are few diseases, in some cases of which febrile delirium does not appear, and proportioned to the severity of the other symptoms. It often follows great wakefulness, sense of weight over the stomach, anxiety, great sensibility of hearing and sight, vertigo, headach, sparkling eyes, ferocious look, tremour of the tongue, gnashing of the teeth, total occupation with subjects on which the sufferer is unaccustomed to think, sudden loss of memory. Change in gesture, sort of discourse, manners, habits, character, affections, point out a first degree of it. Gay delirium is least formidable : if the sufferer neglects his preservation, throws aside food and medicine, his state is grievous. He commits suicide, oftener than is commonly believed, like a maniac. The general appearance, and determinations of delirious people are often very like those of the dying. Fevers of a bad character sometimes leave after them a chronic delirium, which predisposes to insanity. Great flow of ideas sometimes attends acute disease ; things long forgotten are recollected ; a wonderful force of imagination raises the dying man above his own intelligence, gives him the tone of inspiration ; his understanding, especially if he be young and emaciated, acquires unaccustomed force and energy ; he astonishes the hearers by discourse of which he was thought incapable. These observations are derived from Dr. Esquirol.

DELIRIUM of Drunkards. This disease is called by Dr. Sutton *Delirium Tremens*, (see his Tract) ; by Dr. Armstrong, *the Delirium of people addicted to strong drink* ; and in Philadelphia, it is known by the terms *Mania à Potu*, and *Mania a Temulentia*.

Symptoms. Tremors of the hands and wrists ; quickness of the pulse and respiration ; faltering voice ; inflamed eyes ; profuse sweats ; quick wild look ; confusion of ideas ; irritability ; watchfulness. The sufferer fancies himself engaged in his usual occupations, or imagines that he sees insects, &c. on the bed clothes, which causes him to make constant exertions, thereby increasing the sweating and debility. Advanced stages of pneumonia sometimes exhibit this peculiar affection.

Treatment. The room to be kept quiet, dark, and cool ; it should contain but few articles of furniture, and but one attendant, who is to sit by and sooth the patient, wipe the sweat from his body, and feed him with mild savoury

drinks, as barley water impregnated with mint, &c. If he proves refractory, his arms and legs should be confined by the best means. Tepid or cold salt water, thrown over him and immediately wiped off, will sometimes suspend the paroxysm. Many are in the habit of giving enormous doses of opium in this disease; but its real efficacy, to so great an extent, may be doubted---indeed, apoplexy is said to have been induced by it. Dr. Armstrong (see his *Prac. Illustrations of Fever*), recommends bleeding. But probably we shall act most scientifically by treating the disease upon the common principles of medicine---thus, if bleeding be indicated, resort to it---if nausea exist, give ipecacuanha---if costiveness, give gentle laxatives. Dr. Staughton, of Philadelphia, (see *Philad. Journ.* No. 6,) says, that, in many cases, large quantities of a rosy matter of the consistence of boiled tar is often brought away by the action of an emetic, which seldom fails to restore the patient. Blisters may be applied to the chest, back, and neck. Some advise, that opium should only be given to the extent of one grain in 24 hours,---waiting for the system to resume its susceptibility, when it will certainly take its due effect. Dr. Channing, in the *New Eng. Med. Jour.* No. 6, has given several interesting cases. See also *Eclectic Repertory*, vii. p. 251.

DEMENCE. Insanity of old age and decayed intellect. See *Insanity*.

DENTITION OR TEETHING. *Dentitio.* This process is attended with more danger than any disease to which children are liable. It begins generally from the fifth to the eighth month, though sometimes much later, even one or two years. The two lower incisors first appear; the two upper shortly after; four molars succeed; then the canini, and lastly the eye teeth, the most difficult of the whole. These are the usual number of the first teeth, except in a few instances where there are two molars in each jaw, making twenty in the whole. In healthy children dentition is mostly easy, and completed by the sixteenth month; but in weakly and unhealthy children, teeth frequently do not appear in the regular order, are slower in their arrival, and longer in their completion. The symptoms attending the first cutting, often indicate those which will follow subsequently. At the age of six or seven years, children lose their first set of teeth this is immediately followed by the second and last, with the exception of one in each jaw; which are not cut until the age of twenty, and are called the *dentes sapientiæ*.

Symptoms. Dentition is preceded by drivelling, swelling, spreading, and inflammation of the gums; pain, denoted by the child thrusting its fingers in its mouth; redness of cheeks. Sometimes also we have eruptions on the face: looseness and gripes; green stools mixed with mucus; watchfulness; the child is peevish, starts during its sleep, and is often convulsed. To these may be added, in bad cases, much fever; cough, difficulty in breathing, hydrocephalus, &c. which frequently prove fatal. The favourable circumstances are a looseness in the bowels, the winter season, mediocrity of robustness.

Treatment. If the gums be swelled, hard, or inflamed, exciting much irritation, they should be lanced, the scarification repeated frequently, until the tooth is entirely through; the stomach and bowels to be preserved in good order, by the use of emetics and purgatives; acidity obviated by the chalk mixture or magnesia; flatulency by carminatives; aphthæ of the mouth by gargles of alum, borax, honey, &c.; starts and convulsions, by opiates and blisters. When much fever is present with pain and irritation, bleeding from the jugulars, or leeches applied behind the ears will be useful, also blisters, sudorifics, warm bath, sinapisms. A spontaneous purging is salutary, and should not be checked. The advantage of giving children coral, and other substances to bite upon, seems doubtful. Pure air, wholesome food, and good nursing contribute greatly to the safety of teething. Consult *Drs. Armstrong and Underwood on diseases of children.*

DEOBSTRUENTS. Medicines which remove obstructions. The term is chiefly applied to those articles which remove obstruction in the uterine system. See *Emmenagogue*.

DETERGENTS. If any applications deserve this name, they are those which excite an healthy action in the part to which they are applied, such as preparations of subacetate of copper, tincture of myrrh, zinc, alum, &c.

DIABETES. This disease is described as consisting of two species. 1. *Diabetes Mellitus*. When the urine is of the smell, colour, and taste of honey. 2. *D. Insipidus*. When the urine is limpid, very copious, and not sweet.

Symptoms. Languor and disinclination to motion: debility; continued thirst and dryness of the skin; voracious appetite; disorder of the stomach: sense of heat in the kidneys, and pain in the ureters, costiveness; oppression of spirits, swelling of the legs, emaciation, &c. fever, together with an immense increase of the

urine, at first insipid, but soon becoming so sweet that saccharine matter may be extracted from it. The increase of urine is so great, that from twenty to thirty pints have been evacuated daily, a quantity far exceeding the whole food taken into the body. To account for the superabundant quantity of fluid, it is necessary to suppose that moisture is absorbed from the atmosphere by the skin and lungs. Diabetes generally appears in those constitutions which are debilitated by the abuse of spirituous liquors, by hysteria, dyspepsia, by the improper use of diuretics, by excess in venery, poor diet, depressing passions, exposure to cold, hereditary idiosyncrasy. The *proximate cause* is involved in much obscurity, and various opinions respecting it are entertained; Dr. Richter of the Göttingen university supposed it to be of a spasmodic nature, existing in the kidneys. Drs. Cullen, Dobson, and Rollo, believe the fault to exist in the assimilatory process of digestion and chylification, by which a quantity of saccharine matter is formed in the stomach, particularly when vegetable food has been eaten, and conveyed to the kidneys by the sanguiferous system. Others insist that it depends on a disordered action of the kidneys themselves. The treatment however, founded on Dr. Rollo's theory has proved the most successful. The abatement of thirst and voracious appetite; the returning perspiration with regularity of the bowels; the diminution of urine in quantity, and melliferous swell; loss of dyspeptic symptoms; recovery of bodily strength and mental vigour are favourable signs: while the reverse indicate a fatal termination.

Treatment. The indications observed are, 1. to divert the unusual discharge from the kidneys to other channels by the use of diaphoretics, warm bath, and warm clothing; by removing to a warm climate; by blisters, applied to the region of kidneys; by keeping the bowels open. 2. to restore the tone of the parts by astringents and tonics, as zinc, alum, kino, catechu, sulphuric and nitric acids, myrrh, cinchona, chalybeates, cold bathing; large doses of opium have in some instances been found very useful, also the internal exhibition of cantharides, as well as frictions. If the disease be symptomatic of hysteria, hypochondriasis, or asthma, these demand primary treatment.

Dr. Rollo's practice is in conformity with his theory; his indications, therefore, are, to destroy the saccharine process going on in the stomach; to promote a healthy assimilation; to prevent a supposed increased absorption by the surface; to diminish the increased action; to change the

supposed disorder of the kidneys. These he accomplishes, by giving a diet of animal food ; prohibiting every species of vegetable aliment, from which sugar may be extracted ; by the administration of hepeticized ammonia (*Ammonia hydrosulphuretum*), in doses of three or four drops, thrice a day, gradually increased until it produces giddiness ; by anointing the skin with lard, and avoiding exercise ; by antimonial wine and opium at bedtime ; by forming an ulceration about an inch in diameter over each kidney ; by keeping the bowels open with aloes and soap. Mr. Earnest, of the Sheffield Infirmary, has been enabled to cure this disease, principally with the use of nitric acid. Mr. Watt, of Glasgow, has been successful also by large and repeated bleedings, supposing inflammation its immediate cause. Consult *Sydenham's Works*. *Latham and Rollo on Diabetes*. *Watt's cases of Baillie in the Trans. of a Soc. for the improvement of Med. and Chir. knowledge*, Vol. ii. *Bateman in Rees' Cyclopædia*. *Parr's Med. Dict.* *Mott, in Am. Med. and Philo. Reg.* Vol. 1.

DIAPHRAGMITIS. See INFLAMMATION OF THE DIAPHRAGM.

DIAPHORETICS. Medicines which increase the discharge by the skin, as the different preparations of antimony ; ipecacuanha ; liquid acetate of ammonia ; lemon juice neutralized with the carbonate of ammonia, or subcarbonate of potass ; snake root ; nitrous spirit of ether ; warm and vapour baths ; warm diluents. Their operation is essentially promoted by exciting nausea, using pediluvium, and drinking freely of tepid liquors.

DIARRHŒA. Authors describe numerous species of this disease, as 1. *Diarrhœa crapulosa*. When the feces are very copious and watery. 2. *D. biliosa*. When the feces are yellow or bilious. 3. *D. mucosa*. Copious discharges of mucus. 4. *D. cæliaca*. Milky discharges, or like chyle. 5. *D. lienteria*. When the food passes unaltered. 6. *D. hepaticorrhœa*. Bloody or serous discharges without pain. But these divisions are not of practical importance.

Symptoms. Frequent and copious discharges of feculent matter by stool, with griping, and often vomiting, but no fever ; each dejection preceded by a murmuring noise in the intestines and flatulence, with a sense of weight and uneasiness in the belly ; thirst, pale or sallow countenance, skin dry and rigid, &c. If it continues long, it becomes chronic and then induces great emaciation, dropsy, organic disease and ultimately death ; this, however, but seldom happens. **Causes.** Application of cold to the

body, particularly the bowels; suppression of perspiration from whatever cause; passions of the mind; acrid indigestible aliment; crude fruits and putrid substances; abuse of purgatives; worms; retrocedent gout, &c. The *proximate cause*, is an increased action of the peristaltic motion of the intestines. It is distinguished from dysentery, by the absence of tenesmus, evacuation of blood, purulent mucus and hard balls; from cholera morbus, by the absence of violent and incessant vomiting of bile.

Treatment. The indications are, 1. to obviate or remove the exciting cause. 2. To suspend the increased action of the intestines which constitutes the disease. 3. To restore the tone of the stomach and bowels. The *first* is fulfilled by exhibiting an emetic if it arises from repletion, crude or acrid matter in the *primæ viæ*, followed by laxatives; by sudorifics of antimonial or Dovers' powder; by warm bath, if the cause be exposure to cold or obstructed perspiration; by ripe fruits and diluted sulphuric acid, if a septic fermentation be obvious as in scurvy or putrid fevers; by absorbents and alkalies, with frequent mild doses of the neutral salts or the submuriate of mercury, if it be caused by a foul septic acid, known by frequent eructations, griping pains and feces of a white chalky appearance; by drinking freely of diluent liquors, fat broths, barley water, warm milk, &c., if it arises from any acrid or poisonous matter taken into the stomach; by opium, cordials, blisters, cataplasms, and warm bath to the extremities, if it proceeds from misplaced gout; by anthelmintics, if from worms. In most cases the occasional use of mild cathartics are necessary, such as magnesia, rhubarb, calomel in small doses, castor oil, &c. The diet should consist of barley water, beef tea, chicken broth, boiled rice and milk, jellies, arrow root, &c. The patient may drink freely of a strong solution of the acacia gum or linseed tea. The *second* indication is fulfilled by giving opium alone, or combined with astringents, or in glysters made of starch or arrow root, repeated until the desired effect is produced. Blisters to the stomach are also useful. The *third* indication is fulfilled by the use of astringents and aromatics, as alum, logwood, catechu, kino, cinnamon, cardamons, &c. In long standing cases a diet of mutton suet boiled in milk has been found useful, also lime water and milk with acacia gum dissolved therein. Tonics are also proper to assist in the recovery and prevent relapses, such as cinchona, columbo, chalybeates, port wine, brandy and water, &c. The patient should avoid unripe fruits, vegetables, and all crude indigestible

articles whatever. He should likewise wear flannel and keep his feet warm.

When a diarrhœa arises in pregnant women, it must be immediately arrested, lest it should produce abortion. But when it occurs in fevers and other disorders, it generally proves critical, and should then be by no means checked, unless very violent, and then very cautiously. The same remark equally applies in cases of dentition, or in repelled eruptions. The ordinary diarrhœa in children may be treated with gentle emetics and purges, particularly if the stools are green and slimy, followed by absorbents and astringents, making use of light nutritive diet, keeping the child warm, &c. Consult *Armstrong, on diseases of Children. Lind on hot climates. Baillie in Med. Trans. of the Coll. Physicians London. Rush Med. Obs. and Inq. Mann on Cholera infantum. Gorham in New Eng. Med. Jour. Vol. ii.*

DIGESTIVES. Applications which are supposed to produce healthy pus in a wound, such as ointments prepared from yellow wax, turpentine, yellow resin, also poultices.

DILUENTS. Medicines which are supposed to increase the fluidity of the blood and secretions, such as weak tea, herb drinks, and all weak tepid liquors.

DIPLOPIA. See EYE.

DISCUTIENTS. Applications which tend to resolve and disperse swelling and extravasations by promoting the action of the absorbents, such as the different liniments, ointments, and plasters containing quicksilver, plasters of soap, camphor, frictions, electricity.

DIRT-EATING. See CACHEXIA.

DISLOCATIONS.

DISLOCATIONS, or Luxations. This accident has taken place when the articular surfaces of bones are thrown from their places by blows, falls, or other violence.

Dislocations are denominated *simple* when there is no external wound communicating with the joint; and *compound* when there is such a wound. Other distinctions are also made, as *ancient* and *recent*; *complete* when thrown entirely from the socket, which happens to the orbicular joints, as the shoulder or thigh, and *incomplete* when partially dislocated, which happens in the ginglimoidal joints,

as the knee, wrist, &c. Desault speaks of *primitive* dislocations, or when the head of the bone remains in the situation into which it is first thrown; and *consecutive* when it is removed from that situation by the action of the muscles, farther violence, or when the joint is diseased, as in hip cases.

Symptoms of Dislocation. Loss of the functions of the joint; the head of the bone often to be found in an unnatural situation pressing upon and giving pain to the soft parts; the limb is shortened, lengthened, or distorted to one side; depression and want of fulness at the articular cavity.

The ginglymoid joints are dislocated by the force of the accident, but in the orbicular, the actions of the muscles have a share in displacing the bone, particularly in the lower jaw. The general cause of dislocation is accident, though a laxity of fibre, and paralysis of the parts predispose to it. The danger is always with the compound accidents, amputation being often necessary, a decision which calls for all the judgment and skill of the surgeon. The joint, constitution, age, parts injured, and the extent of the injury, must all be taken into consideration to make up an opinion in such cases, and when determined upon must be performed without delay, and prior to any extensive swelling or inflammation. The danger is greater in the ginglymoidal than the orbicular joints, and increases in a ratio corresponding with their size, because in the former greater violence is necessary to displace the parts, while in the latter the accident is easily produced, being assisted by the action of strong muscles. But in affecting reduction, the difficulty is greatest in the orbicular, having then to contend against these muscles. *The indications of treatment* are, to restore the parts displaced to their natural situations, and then to confine them with splints and bandages until the lacerated ligaments, &c. have time to unite. In compound dislocation, after reducing the bone, the grand object is to effect an union of the wound, by the first intention, which reduces it, as in fracture to a simple case. To effect this the lips of the wound are to be accurately brought together, and retained so, by means of adhesive plaster bandages, &c. The limb is then to be kept in a state of perfect rest in an eligible posture.

The after treatment of simple cases rarely requires much to be done. It may in a few instances be proper to draw blood, and administer a purgative, and apply lotions. However the application of a little ammoniated liniment is not amiss. But in compound accidents, it is other-

wise, and I must beg leave to refer the reader to Compound Fracture, where all which is there recommended for averting inflammation, treatings, abscesses, and deciding upon amputation, should it appear afterwards necessary, equally applies to the present case. In ancient dislocations, or when the bone has been long out of its place, it is seldom that reduction can be effected, as it forms for itself an artificial socket, and adhesions which cannot be broken down.

Of reduction. The obstacle to reduction, is the resistance of powerful muscles, consequently it becomes necessary to make the extension in a direction not immediately opposed to them. When much difficulty arises, or where the accident has happened for some hours, particularly in strong muscular men, it will be proper to draw off a quantity of blood, and in addition to this a nausea should be kept up for half an hour, by means of tartar of antimony. The muscles become almost powerless and resistless, and then offer little or no opposition to our effects.

But the grand principle is, to overcome the resistance of the muscles by fatiguing them. This is to be accomplished by making a steady, not violent, and long-continued extension, probably for the space of five, eight, or ten minutes. As soon as the muscles are exhausted, in their strength in opposing our extension, the patient complains of excessive uneasiness in the part, so much so as nearly to produce fainting. This is a favourable symptom and we are by no means to remit the extension, for in a few seconds we shall find the limb yield, when we are to bring the end of the bone opposite its articular cavity, and it instantly flies in. When we meet with extraordinary resistance from the muscles, we can often succeed by throwing the patient off his guard and diverting his mind to some other subject than his accident, the muscles, then not being under the influence of the will, reduction will in most cases instantly follow.

OF PARTICULAR DISLOCATIONS.

OF THE LOWER JAW. There is only one kind of this dislocation, but it may occur on one or both sides. The displacement consists on the condyloid processes being thrown from their sockets, advancing forwards and slipping up under the zygomatic arch. It may be known by the difficulty in speaking and deglutition; by the projecting forward of the under jaw; and the saliva dribbling over

the under lip. If the side, and the upper and lower teeth do not correspond, it is probably a dislocation on one side only. It is most likely to happen when the mouth is widely extended in loud laughing or excessive yawning. In affecting the reduction the principle is to make a lever of the jaw itself. The surgeon having well defended his thumbs with gloves or otherwise, is to place them far back on the molar teeth, to act as a fulcrum, then with his fingers or the palms of his hands, he is to elevate the chin or anterior part of the bone, at the same time depressing the posterior part with his thumbs already upon the back teeth. Or two sticks may be placed on the molar teeth as a fulcrum, the surgeon standing behind the patient and fixing the head of the latter against his own breast, is to pull upward and backward until the reduction is effected.

OF THE HEAD. This very rarely happens from the firmness of its connection with the trunk. The atlas however may be thrown off the *processus dentatus* forwards, by falls, or the process may be destroyed by caries, when the head falls forwards. In such cases, if death is not immediately produced by injury done the spinal marrow, the head is found preternaturally moveable; the face swollen; the eyes prominent; the mouth open; the tongue motionless; respiration difficult; pulse small; sensibility lost, &c. If the dislocation is the result of accident, we are, bearing in mind the anatomy of the parts, to attempt reduction by promptly and cautiously endeavouring to replace the atlas upon the pivot of the *dentata*.

OF THE VERTEBRÆ. By very great violence, the oblique and articular processes are now and then fractured, in consequence of which these strong bones may be displaced. In such an accident the patient cannot stand erect, the spinous processes are uneven and have lost their arrangement. The spinal marrow, is generally compressed, in consequence of which all parts of the body receiving their nerves from below the injury are paralyzed, and lose their sensibility so entirely, that they may be pinched and even burnt without the patient complaining: the stools and urine pass off involuntarily. In such a case, the surgeon must rely upon the resources of his own judgment for replacing the parts in the best manner in his power. There is danger in attempting to remove the compression from the spine, of rendering it still worse. The many successful plans spoken of by authors were probably used in cases where the spine had suffered concussion only.

OF THE OS COCCYGIS. This bone is liable to dislocation from its connection with the sacrum, inwards by external violence, and outwards from hard labours. It causes pain, retention of the feces, tenesmus, inflammation, and sometimes suppuration, if neglected. It is easily ascertained by passing one forefinger into the rectum, and with the other making examination outward. It can at the same time be reduced by pressing the bone inwards if it is thrown outwards, and the reverse if it is the contrary accident. Soap plaster and T. bandage is proper for the after-treatment, together with glysters daily.

OF THE RIBS. This accident is also very rare, but when it does take place and at the vertebral extremity, an indentation may be felt near the transverse process of the vertebræ. Its reduction is effected by pressing on the anterior end of the rib, rendering farther assistance, with the fingers of the other hand at the other extremity of the bone. If the displacement is at the sternal extremity of the rib, it is to be replaced upon a similar principle upon the reverse ends of the bone. A compress is afterwards to be placed upon the part, and a long broad bandage carried several times around the chest, as in fracture of the same bones, to prevent a re-displacement. Bleeding, purging, &c. will be afterwards necessary. Should fever, or difficulty of breathing come on.

OF THE CLAVICLE. This dislocation mostly happens at the sternal extremity of the bone, and may be inwards or outwards. In the former case it produces unpleasant symptoms from its pressure upon the trachea, &c. It can be readily distinguished by the deformity produced at the part. When the dislocation is at the scapular end of the bone it is always thrown up over the acromion, for the coracoid process below prevents the bone from descending below the acromion. It is to be reduced by relaxing the trapezius muscles; by taking off the weight of the arm, by pushing downward the scapular end of the clavicle, while an effort is made to raise the acromion. In both cases the shoulders should be well brought back and retained so by the figure of 8 bandage, having previously placed a stout cushion in the axilla and a compress on the dislocated part.

OF THE OS HUMERI. This dislocation may be in three directions; 1. *downwards*, the head of the bone being situated in the axilla where it may be distinctly felt. The arm seems longer than is natural, and is a little raised from the side; while the fore arm is extended, in consequence of the tension of the triceps muscle. The arm cannot

be approximated to the chest, nor can the fore arm be bent without much pain, there is also paralysis and œdema of the limb from the pressure made by the bone upon the nerves and vessels in the axilla. There is moreover, as in all other dislocations, a loss of rotundity and general contour of the joint. 2. *backwards*, when the head of the bone is thrown upon the dorsum of the scapula. The elbow is strongly inclined towards the thorax, the pectoral muscle is tense, the head of the bone can be often felt, and the arm cannot be brought at right angles with the body. 3. *forwards*, when the head of the bone is situated upon the chest under the pectoral muscle, forming a protuberance there. The fore arm is bent, the elbow thrown to a little distance from the side and cannot be brought near it without pain; the loss of rotundity at the joint is less than in the other cases; and the arm in this, as well as the preceding, is shortened.

The reduction is effected by placing the patient upon a bed, the floor, or a strong table; fixing the chest, by placing a broad towel or sheet around it, and securing the ends to some fixed point; the clavicle and scapula are to be held firm by an assistant with both hands. Extension is now to be made in the direction in which the humerus is thrown, either by assistants, or by means of a block and pulley upon a towel secured around the arm just above the condyles. Another towel is to be passed around the limb near the axilla, the ends of which are to be held by the surgeon. As soon as sufficient extension has been made to move the head of the bone from its situation, it is to be converted into a lever to bring its head to its proper cavity. This is effected by an assistant rotating the limb by the elbow and fore arm in the proper direction, the extension still continuing, while the surgeon makes a fulcrum of the towel near the axilla, by pulling the bone opposite the glenoid cavity, when it will be immediately reduced by the contraction of the muscles, with a loud noise. These dislocations are sometimes quite easily reduced by the surgeon alone. He is to make a proper degree of extension with one hand, which having effected, he is to place his other hand near the head of the bone for the fulcrum, when the bone being used as a lever can be reduced. I have seen Mr. A. Cooper lay the patient on a bed, (in a downward dislocation,) place his heel in the axilla as a fulcrum, and with his hands make the necessary extension and rotation. Mr. Hey says, he has seen the bone reduced by the patient's own efforts, when sitting with his arm hanging over the back of a chair, while the

surgeons were engaged in preparing the complicated paraphenalia, for a scientific reduction.

OF THE ELBOW. The dislocations at this joint are always apparent until swelling takes place, when it will sometimes increase to such a degree as to render a true diagnosis extremely difficult. In such cases it is our business to search for the prominences of the olecranon and the internal condyle of the os humeri, which in the natural state, are near to, and almost opposite each other: and when they are found different from this, we may be certain that there is some displacement. The dislocations of this joint are five; 1. *backwards*, the most frequent. In this case the heads of the ulna and radius are thrown up behind the os humeri; the coronoid process of the ulna is lodged in the cavity naturally occupied by the olecranon, while the olecranon is situated high up the arm; the head of the radius is behind the external condyle: the arm is in a state of half flexion, and cannot be brought straight without pain. 2. and 3. the lateral dislocations; these are almost always partial. The external lateral, or when the ulna slips into the situation of the radius is most common; the internal lateral rarely takes place, from the formation of the bones. Both these cases are quite obvious by the distortion and altered situation of the internal condyle and olecranon. All the dislocations are easily reduced by making extension upon the humerus and fore arm by assistants, while the surgeon grasps the joint firmly with both hands, and endeavours to press the bones into their places. 4. the ulna and radius are dislocated forwards, when the olecranon process is commonly broken off. In this case the arm is to be reduced in the way just mentioned, and then treated as fracture of the olecranon. (See Fracture.) 5. the ulna may be thrown backwards, and the radius forward and upwards upon the humerus, when the inter-osseous ligament is commonly torn. This is the most difficult of the whole to reduce, and extension will not effect it. The fore arm is to be brought nearly at right angles with the humerus, the surgeon is then to put his knee against the head of the radius as a fulcrum, while with one hand he hold firm the humerus, with the other he draws the lower arm towards himself, or in other words, into complete flexion, thus rendering it a lever upon itself. Mr. A. Cooper in his lectures says, that he has in difficult cases of this sort, succeeded in reducing the dislocation by placing the patient's fore arm upon the floor, then applying the ball of his great toe to the upper head of the radius, and pressing firmly down upon it, while at the

same time he brought the fore arm into complete flexion. In all cases, it is necessary to guard against re-dislocation, by the application of a compress, and of the figure of 8 bandage upon the joint.

OF THE WRIST. Dislocations at this joint may be backwards, forwards, inwards, and outwards. These accidents are very obvious and require gentle extensions only to effect their reduction; but the tendons and ligaments are often much sprained and sometimes ruptured. Rest, cold saturnine lotions, leeches, &c. are sometimes necessary to reduce the inflammation; afterwards liniments, bandages, frictions, blisters, and electricity, to remove the rigidity and debility remaining. But such swellings are apt to continue for a long time, exhibiting the appearance of a dislocation still unreduced. The same appearance too, will often occur after severe sprains, but will ultimately absorb under the use of the above remedies. Pouring a column of cold water from a height upon the joint, in these cases is a popular and useful remedy. It should not be continued however, if it excites pain and inflammation.

OF THE THUMB AND FINGERS. These dislocations are to be reduced by extension, and confined by splints, or paste board wetted, which soon dries and firmly embraces the joint. The arm in all these cases to be carried for some time in a sling, besides using the bandages.

OF THE THIGH. For the following account of the dislocations at this joint, I am indebted to Mr. Astley Cooper, published in those valuable works entitled '*Surgical Essays by Mr. A. Cooper and B. Travers, London, 1818-19-20.*' This truly great man observes, "I have seen the thigh-bone dislocated in four directions only. 1. *upwards*, or upon the dorsum of the ilium. 2. *downwards*, or into the foramen ovale. 3. *backwards and upwards*, or into the ischiatic notch: and 4. *forwards and upwards*, or upon the body of the pubis. No dislocation downwards and backwards has occurred at St. Thomas's or Guy's Hospital, in the last thirty years, or in my private practice; and I doubt its existence, although I would not deny the possibility of its occurrence, being disposed to believe that some mistake has arisen upon the subject."

1st. UPWARDS. This is the most frequent, and is known by the dislocated limb being from one inch and a half to two inches and a half shorter than the other, which is well seen by comparing the malleoli interni. The toe of the dislocated side rests against the tarsus of the other foot; the knee and foot turned inwards, and the knee a little ad-

vanced upon the other, and cannot be rotated outwards. If so much blood has not been effused, which it seems is sometimes the case in dislocation, as to conceal the bones, the head of the thigh-bone can be perceived, on rotating the knee inwards, moving upon the dorsum of the ilium, and the trochanter major is felt near the spinous process of the ilium ; the roundness of the hip is lost, and the trochanter is less prominent than on the opposite side ; for the neck of the bone and the trochanter are resting in the line of the surface of the dorsum ilii. This accident is liable to be confounded only with a fracture of the thigh-bone through its neck *within* the capsular ligament, from which, however, it can be readily distinguished when it is recollected that in this fracture the knee and foot are generally turned outwards : the trochanter is drawn backwards : the limb can be readily bent towards the abdomen, although with some pain ; but above all, the limb, which is shortened from one to two inches, by the contraction of the muscles, can be made of the length of the other by a slight extension, and when the extension is abandoned, the leg is again shortened. Crepitus, too, can be felt when the limb is extended, but not when shortened ; moreover this kind of fracture rarely occurs but in old persons, and is produced by very slight causes, owing to the absorption the bone undergoes in old persons. Fractures through the neck of the femur, *without* the capsular ligament, occur at any age, and are readily detected by the crepitus, which may be felt by rotating the limb and compressing the trochanter with the hand. Although the symptoms just detailed will for the most part mark the distinction between these accidents, yet there is a variety of this dislocation mentioned by Mr. S. Cooper, " in which the head of the bone is so situated on the dorsum of the ilium that it lies forward, the trochanter major backward, an instance of which I have myself seen in St. Bartholomew's hospital. This case deserves particular attention, because, being attended with a considerable turning of the toes outwards, as well as a shortening of the limbs, it is the only example which is likely to be mistaken for a fracture of the neck of the thigh-bone. This case, however, is not difficult of detection ; for you can even feel the head of the bone projecting forward on the ilium, and you cannot rotate the limb inwards, which can be done in cases of fracture, though doing so is productive of immense suffering." (*See his Surg. Dict. Art. Dislocation.*) The circumstance, too, of the ready extension of the limb to its

natural length occurring only in fractures, as stated above, may help to form the diagnosis.

Of the reduction. Mr. Astley Cooper, in his valuable Essays, says :---“ In the reduction of this dislocation the following plan is to be adopted : take from the patient from twelve to twenty ounces of blood, or even more, if he be a very strong man ; and then place him in a warm-bath at the heat of 100 deg. and gradually increase it to 110 deg. until he feels faint. During the time he is in the warm-bath give him a grain of tartarized antimony every ten minutes until he feels some nausea, then remove him from the baths and put him in blankets, and place him between two strong posts about ten feet from each other, in which two staples are fixed ; or rings may be screwed into the floor, and the patient be placed upon it. The patient is to be placed on a table covered with a thick blanket, upon his back ; then a strong girt is passed between his pudendum and thigh, and this is fixed to one of the staples. A wetted linen roller is then tightly applied just above the knee, and upon this a leather strap is buckled, having two straps with rings at right angles with the circular part. The knee is to be slightly bent, but not quite to a right angle, and brought across the other thigh a little above the knee. The pulleys are fixed in the other staple, and in the strap above the knee. The patient being thus adjusted, the surgeon slightly draws the string of the pulley, and when he sees that every part of the bandage is upon the stretch, and the patient begins to complain, he waits a little to give the muscles time to fatigue ; he then draws again, and when the patient complains much, again rests, until the muscles yield. Thus he gradually proceeds until he feels the head of the bone descend. When it reaches the lip of the acetabulum, he gives the pulley to an assistant, and desires him to preserve the same state of extension, and the surgeon then rotates the knee and foot gently outwards, doing it not with a violence to excite opposition in the muscles, and in this act the bone slips into its place. In general it does not return with a snap into its socket when the pulleys are employed, because the muscles are so much relaxed, that they have not sufficient tone remaining to permit them to act with violence, and the surgeon only knows of the reduction by loosening the bandages. It often happens that the bandages get loose before the extension is completed, which should be guarded against as much as possible, by having them well secured at first, but if they are obliged to be renewed, as little

time as possible should elapse in their re-application, to prevent the muscles having time to recover their tone.

"It is sometimes necessary to lift the bone by placing the arm under it near the joint, when there is difficulty in bringing it over the lip of the acetabulum.

"After the reduction, in consequence of the relaxed state of muscles, great care is required in returning the patient to his bed."

2d. "*On the Dislocation downwards, or in the Foramen Ovale.*—This accident happens when the thighs are widely separated from each other. The ligamentum teres and the lower part of the capsular ligament are torn through, and the head of the bone becomes situated in the posterior and inner part of the thigh upon the obturator externus muscle. The limb is in this case from two to three inches longer than the other. The head of the bone can be felt by pressure of the hand, upon the inner and upper part of the thigh towards the perineum. The trochanter major is less prominent than on the opposite side. The body is bent forwards, owing to the psoas and iliacus internus muscles being put upon the stretch. The thigh is considerably advanced if the body be erect; the knee is widely separated from the other, and cannot be brought without great difficulty near the axis of the body to touch the other knee, owing to the extension of the glutei and pyriformis muscles. The foot, though widely separated from the other, is neither turned outwards or inwards generally, although I have seen it varying a little in this respect in different instances; but the position of the foot does not in this case mark the accident. It is the bent position of the body, the separated knees, and the increased length of the limb, which are the diagnostic symptoms.

"The reduction of this dislocation is generally very easily effected. If the accident has happened recently, all that is required is to place the patient upon his back, to separate the thighs as widely as possible, and to place a girt between the pudendum and upper part of the thigh, fixing it to a staple in the wall. The surgeon then puts his hand upon the ankle of the dislocated side, and draws it over the sound leg, and thus slips it into its socket. Thus I saw a dislocation reduced, which had happened very recently, and which was subjected to an extension in St. Thomas's Hospital almost immediately after the man's admission. In this case the patient might have the thigh fixed by the bed-post, received between the pudendum and the upper part of the limb, and the leg be carried inwards across the other. But in general it is required to fix the pelvis by a

girt passed around it, and crossed under that which passes around the thigh, otherwise the pelvis moves in the same direction with the head of the bone. And in those cases in which the dislocation has existed for three or four weeks, it is best to place the patient upon his side, to fix the pelvis by one bandage, and to carry another under the thigh to which the pulleys are affixed, and to draw the thigh, upwards; whilst the surgeon presses down the foot to prevent the lower part of the limb being drawn with the thigh-bone. Thus the limb is used as a lever with very considerable power. Great care must be taken not to advance the leg in any considerable degree, otherwise the head of the thigh-bone will be forced behind the acetabulum into the ischiatic notch, from whence it cannot be afterwards reduced."---*ib.*

3d. *Of the Dislocation backwards, or in the Ischiatic Notch.* ---"In this dislocation the head of the thigh-bone is placed on the pyriformis muscle, between the edge of the bone which forms the upper part of the ischiatic notch, and the sacro-sciatic ligaments. The head of the bone is placed behind the acetabulum, and a little above the level of the middle of that cavity.

"It is the dislocation most difficult both to detect and to reduce:---to detect, because the length of the limb differs but little, and its position is not so much changed as regards the knee and foot, as in the dislocation upwards; to reduce, because the head of the bone is placed deep behind the acetabulum, and it therefore requires to be lifted over its edge, as well as to be drawn towards its socket.

"The signs of this dislocation are, that the limb is about half an inch to one inch shorter than the other, but generally not more than half an inch; that the trochanter major is behind its usual place, but is still remaining nearly at right angles with the ilium, with a slight inclination towards the acetabulum. The head of the bone is so buried in the ischiatic notch, that it cannot be distinctly felt but in thin persons, and then only by rolling the thigh-bone forwards as far as the comparatively fixed state of the limb will allow. The knee and the foot are turned inwards, but not nearly so much as in the dislocation upwards, and the toe rests against the ball of the great toe of the other foot. When the patient is standing, the toe touches the ground; but the heel does not quite reach it. The knee is not so much advanced as in the dislocation upwards, but is still brought a little more forward than the other, and is slightly bent. The limb is fixed, so that both flexion and rotation are in a great degree prevented."

“ This dislocation is produced by force, being applied when the body is bent forward upon the thigh, or when the thigh is bent towards the abdomen ; when, if the knee be pressed inward, the head of the bone is thrown behind the acetabulum.

“ The *reduction* of the dislocation in the ischiatic notch is generally extremely difficult, and is best effected in the following manner: The patient lies on a table upon his side, and a girt is to be placed between the pudendum and the inner part of the thigh to fix the pelvis. Then the leather strap for the pullies is applied above the knee, upon which a wetted roller is tightly applied. A napkin is to be carried under the upper part of the thigh. The thigh-bone is then brought across the middle of the other thigh, measuring from the pubis to the knee, and the extension is to be made with the pullies. Whilst this is conducting, an assistant pulls the napkin at the upper part of the thigh with one hand, and rests the other upon the brim of the pelvis, and thus lifts the bone as it is drawn towards the acetabulum over its lip. For the napkin I have seen a round towel very conveniently substituted, and this was carried under the upper part of the thigh, and over the shoulders of an assistant, who then rested his hands on the pelvis, as he raised his body and lifted the thigh.”---*ib.*

Mr. Cooper relates a case in Gny's Hospital, where, in this dislocation of the thigh the extension was made with pullies in a right line with the body ; and at the time the extension was made, the trochanter major was thrust forwards with the hand, and the bone returned in about two minutes into its socket with a violent snap.

4th. *Of the Dislocation on the Pubis.*---“ This dislocation is more easy of detection than any other of the thigh. It happens from a person in walking putting his foot into some unexpected hollow in the ground, and his body at the moment is bent backwards ; the head of the bone is thrown forwards upon the pubis.”

“ The limb is in this case an inch shorter than the other ; the knee and the foot are turned outwards, and cannot be rotated inwards, but there is a slight flexion forwards and outwards ; and in a dislocation which had been long unreduced, the motion at the knee backwards and forwards was full twelve inches ; but the striking criterion of this dislocation is, that the head of the thigh-bone may be distinctly felt upon the pubis, above the level of Poupart's ligament, to the outer side of the femoral artery and vein.

It feels as a hard ball there, which is readily perceived to move by bending the thigh-bone. Yet although this case is apparently so easy of detection, I have known three instances, in which it was overlooked, until it was too late for reduction."

"In the *reduction* of this dislocation, the patient is placed upon his side on a table; the girt is to be carried between the pudendum and inner part of the thigh, and is to be fixed in a staple, a little before the line of the body. The pulleys are fixed above the knee, as in the dislocation upwards, and then the extension is to be made in a line behind the axis of the body, the thigh-bone being drawn backwards. After this extension has been for some time continued, a napkin is to be carried under the upper part of the thigh, and an assistant, pressing with one hand on the pelvis, lifts the head of the bone over the pubis and edge of the acetabulum."---*ib.*

Dr. Dorsey (*see his Surgery*) mentions an unusual case, where the head of the bone was below Poupert's ligament, rendering the limb longer.

On the Dislocations of the Patella.---"The patella is liable to be dislocated in three directions; namely, outwards, inwards, and upwards.

"In its lateral dislocation the bone is most frequently thrown on the external condyle of the os femoris, where it produces a great projection; and this circumstance, with an incapacity of bending the knee, is the strong evidence of the nature of the injury. The most frequent cause of the accident is from a person, in walking or running, falling with his knee turned inwards, and the foot outwards, and thus, by the action of the muscles to prevent the fall, the patella is drawn over the external condyle of the os femoris, and when the person attempts to rise, he finds himself unable to bend his leg, and the muscles and ligaments of the patella are all forcibly on the stretch. This accident generally occurs in those who have some inclination of the knee inwards, which, under the action of the extensor muscles, gives a direction to the patella outwards."

"The *internal* dislocation is much less frequent, and it happens from falls upon a projecting body, by which the patella is struck upon its outer side, or by the foot being, at the time of the fall, turned inwards."

"The mode of *reduction* in either case consists in pursuing the following plan. The patient is placed in a recumbent posture, and an assistant raises the leg by lifting it at the heel; the advantage of which is, that it relaxes the

exterior muscles in the greatest possible degree; then the surgeon presses down that edge of the patella which is most remote from the joint, be it one luxation or the other; and this pressure raises the inner edge of the bone over the condyle of the os femoris, and it is immediately drawn, by the force of the muscles, into its situation."

"An evaporating lotion of spirit of wine and water is to be applied, and in two or three days the limb may be bandaged, and it is soon restored to its natural uses although it is somewhat weaker than before."

"When the bone is dislocated from relaxation, the patella is drawn upon the external condyle of the os femoris from very slight accidents, or from sudden action of the muscles. Tendency to it is said to be induced by onanism."

"The reduction is effected in the manner before described, and to support the weakened ligament, a laced knee-cap with a strap and buckle above and below the patella is to be worn."

On the Dislocation of the Patella upwards.---"In this dislocation the ligament of the patella is torn through by the action of the rectus femoris muscle, and the immediate effect of the injury is to draw the patella upwards upon the fore part of the thigh-bone.---The appearances, which this accident presents, are very decisive of the nature of the injury; for, besides the elevation of the patella, and its easy motion from side to side, a deep depression is felt above the tubercle of the tibia from the absence of the ligament: the patient immediately loses the power of bearing upon that limb, as the knee bends under each attempt, and he would fall if he persisted in throwing the weight of his body upon it. A considerable degree of inflammation follows. Local depletion and evaporating lotions are to be used for from four to seven days, and then a roller is to be applied round the foot and upon the leg, to prevent it from swelling, the leg is to be kept extended by a splint behind the knee, and a bandage composed of a leather-strap is to be buckled around the lower part of the thigh; to this is to be attached another, which is to be carried on each side of the leg, and under the foot, and is to be buckled to the circular strap; thus the bone is gradually drawn down, so as to allow of an union of the ligament. In a month the knee may be slightly bent, and as much passive motion daily given as the patient is able to bear; by these means the ruptured ligament becomes united, and the patella retains its motion."

On Dislocation of the Tibia at the Knee-Joint.---"These dislocations occur in four different directions; but two of

them are incomplete and lateral, while the others are perfect luxations, the tibia being thrown either backwards or forwards."

"The lateral dislocations are but rare. *Internal.* In the dislocation inwards, the tibia is thrown from its situation, so that the condyle of the os femoris rests upon the external semilunar cartilage, and the tibia projects on the inner side of the joint, so as at once to disclose the nature of the injury."

External.---"The tibia is now and then thrown upon the outer side of the knee-joint, the condyle of the os femoris being placed in the situation of the inner semilunar cartilage, or rather behind it, when an equal deformity is produced, as in the other dislocation. The reduction of the limb is equally easy with the former, and the patient recovers with little diminution of the powers of the part. It seems to me that in both these dislocations the tibia is rather twisted upon the os femoris, so that the condyle of the os femoris, with respect to the tibia is thrown somewhat backwards, as well as outwards or inwards."

Forwards.---"The tibia is now and then dislocated in the direction forwards. In this accident, when the person is recumbent, the external marks of the injury are these. The tibia is elevated, the thigh-bone is depressed, and is thrown somewhat to the side as well as backwards. The os femoris makes such pressure on the popliteal artery, as to prevent the pulsation of the anterior tibial artery on the foot; the patella and tibia are drawn by the rectus muscle forwards."

Backwards.---"The head of the tibia is sometimes dislocated backwards, behind the condyles of the os femoris, producing the following appearances: a shortened state of the limb, a projection of the condyles of the os femoris, and depression at the ligament of the patella, and the leg is bent forwards."

These accidents are obvious to any observer, and are easily reduced by extending the limb, and thrusting the bones into their proper situations. The most active measures are to be taken to prevent inflammation, as general bleeding, purgung, and antiphlogistics; leeches and cold washes to the part; absolute rest. After all inflammation is at an end, the application of bandages and the laced knee-cap is proper.

On partial Luxations of the Thigh-bone from the semilunar Cartilages ---"Under extreme degrees of relaxation, or in cases in which there has been increased secretion into a joint, the ligaments become so much lengthened as to

allow the cartilages to glide upon the surface of the tibia, and particularly when pressure is made by the thigh-bone on the edge of the cartilage."

"The semilunar cartilages which receive the condyles of the os femoris are united to the tibia by ligaments, and when these ligaments become extremely relaxed and elongated, the cartilages are easily pushed from their situation by the condyles of the os femoris, which are then brought into contact with the head of the tibia, and, when the limb is attempted to be extended the edges of the semilunar cartilages, prevent it. How then is the bone to be again brought upon the cartilages? Why, as Mr. Hey has advised, by bending the limb back as far as is possible, which enables the cartilage to slip into its natural situation, from the pressure of the thigh-bone being removed in the bent position, and the leg being brought forwards, it can then be completely extended, because the condyles of the os femoris are again received on the semilunar cartilages."

This method of reduction, however, Mr. Cooper says, is not always successful, and he mentions a case where the patient reduced the limb by "sitting on the ground, and then bending the thigh inwards and pulling the foot outwards, the subluxation of the os femoris being external, the natural position of the limb became restored." For preserving the parts in their places, Mr. Cooper advises a bandage composed of a piece of linen with four rollers attached to it, which are tightly bound above and below the patella. These accidents mostly arise from striking the toe, when the foot is averted, against any projection; from turning suddenly in bed and the clothes not suffering the foot to turn readily with the body; also from a sudden twist of the knee inwards, when the foot is turned outwards. These cases are sometimes complicated with chronic rheumatism, attended with enlargement of the joint, and other deformities. Blisters, bandages, &c. are here useful.

Mr. Cooper has never seen but one case of *compound* dislocation at the knee---the accident requires amputation.

Dislocation will sometimes occur in this and the hip-joint from ulceration in cases of scrophula, &c. The capsular ligament being ulcerated through, the bones become unconnected; the muscles, by participating in the inflammation, become spasmodically affected, and the limb is drawn from its place. Such a result is to be prevented by opposing the action of the muscles by means of splints,

gradual and gentle extension of the limb, and by exhibiting opium.

DISLOCATION OF THE HEAD OF THE FIBULA. This is more frequently the result of relaxation of the ligaments than violence. It is thrown backwards, but is easily brought into its proper place again, though exceedingly apt to be re-displaced and to give much trouble. The relaxation is to be removed by liniments, bandages, tonics, &c.

“ **OF THE DISLOCATIONS OF THE ANGLE-JOINT.**

Of the simple Dislocation of the Tibia inwards.---This is the most frequent of the dislocations of the ankle; the tibia, in this accident, has its internal malleolus thrown inwards, which so forcibly projects against the integuments as to threaten their bursting. The foot is thrown outwards, and its inner edge rests upon the ground; about three inches above the outer angle there is a deep depression, and a general tumefaction, from extravasation, surrounds the joint.”

“Upon dissection, the internal appearances are as follow: the end of the tibia rests upon the inner side of the astragalus, instead of on its upper articular surface, and if the accident has occurred from a person jumping from a considerable height, the lower end of the tibia, where it is connected with the fibula, by ligament, is split off, and remains connected with the fibula, which is also broken from 2 to 3 inches above the joint, and the broken end of the fibula is carried down upon the astragalus occupying the natural situation of the tibia; the malleolus externus of the fibula remains in its natural situation, with two inches of the fibula and the split portion of the tibia; the capsular ligament attached to the fibula at the malleolus externus and the three strong fibular tarsal ligaments, remain uninjured.”

“For the reduction of this dislocation the patient is to be placed upon a mattress properly prepared, and is to rest on the side on which the injury has been sustained; he is then to bend the leg at right angles with the thigh, so as to relax the gastrocnemii muscles as much as possible, and an assistant grasping the foot gradually draws it into a line with the leg. The surgeon fixes the thigh and presses the tibia downwards, thus forcing it upon the articulating surface of the astragalus.”

Treatment.---“After the limb has been reduced, it is still to remain upon its outer side in the best position, with the foot well supported; a many-tailed bandage is placed over the part to prevent it slipping from its place,

and this is to be kept wet with an evaporating lotion. Two splints are then to be applied ; and that upon which the outer part of the limb rests is to have a foot-piece, to give support to the foot, prevent its eversion, and preserve it at right angles with the leg. If much inflammation succeeds, leeches are to be applied to the parts, and the constitution will require relief by taking blood from the arm, and by attention to the bowels. A person who has had this accident may be removed from his bed in five or six weeks, long straps of plaister being passed around the joint to keep the parts together, and he may be suffered to walk on crutches ; but from ten to twelve weeks elapse before he has the free motion of his foot ; and much friction and passive motion are required after eight weeks to restore the motion of the joint."

Of the simple Dislocation of the Tibia forwards.---" In this accident the foot appears much shortened, the heel proportionably lengthened and firmly fixed, and the toes are pointed downwards. Upon dissection the tibia is found to rest upon the upper surface of the os naviculare and os cuneiforme internum, quitting all the articulatory surface of the astragalus, excepting a small portion on its fore part, against which the tibia is applied. The fibula is broken, and its fractured end advances with the tibia, and is placed by its side ; its malleolus externus remains in its natural situation, but the fibula is broken about three inches above the joint ; the capsular ligament is torn through on its fore part, the deltoid ligament is only partially lacerated, and the three ligaments of the fabula remain unbroken."

" The treatment consists in attending to the following rules : the patient is placed in bed on his back ; one assistant grasps the thigh at its lower part, and draws it towards the body, and another pulls the foot in a line a little before the axis of the leg, and the surgeon pushes the tibia back to bring it into its place. The same principles are held in view in this mode of reduction as in the former, with respect to the relaxation of the muscles."

Of the partial Dislocation of the Tibia forwards.---" This bone is sometimes partially luxated forwards, so as to rest half on the os naviculare, and half on the astragalus. The fibula, in this accident, is broken ; the foot appears but little shortened, nor is there any considerable projection of the heel. The signs of this accident are as follow : The foot is pointed downwards, and a difficulty is experienced in the attempt to put it flat on the ground : the

heel is drawn up, and the foot is in a great degree immoveable."

Treatment. "In these cases, however slight they may appear, we are not to rest satisfied until the foot be returned into its natural position; for if neglected in the commencement, severe inflammation and tension will prevent even a forcible extension being afterwards useful; and if still longer neglected, the changes in the state of the muscles, and the union of the fibula will preclude the possibility of a reduction, even under the most violent attempts. The mode of reduction and after-treatment will in no respect differ from that required in the perfect dislocation of the bone."

Dislocation of the Tibia outwards.---"This luxation is the most dangerous of the three, for it is produced by greater violence, is attended with more contusion of the integuments, more laceration of ligament, and greater injury to the bone; the foot is thrown inwards, and its outer edge rests upon the ground. The malleolus externus projects the integuments of the ankle very much outwards, and forms so decided a prominence that the nature of the injury cannot be mistaken; the foot and the toes are pointed downwards."

"The mode of *reduction* consists, in placing the patient upon his back, in bending the thigh at right angles with the body, and the leg at right angles with the thigh; the thigh is then grasped under the ham by one assistant, and the foot by another; and thus an extension is made in the axis of the leg, whilst the surgeon presses the bone inwards towards the astragalus. The limb, in the simple dislocation, is to be laid upon its outer side, resting upon a splint, with a foot piece, and a pad is to be placed upon the fibula, just above the outer angle, and extending a few inches upwards, so as in some measure to raise that portion of the leg, and support it so as to prevent the tibia and fibula slipping from the astragalus, as well as to lessen the pressure of the malleolus externus upon the integuments, where they have sustained injury."

"The local and general treatment will be the same as in former cases, although more depletion is required as greater inflammation succeeds; the greatest care is required that the foot does not become twisted inwards or pointed downwards, as either of these states prevents the limb from being afterwards useful. Passive motion should be given to the joint in six weeks from the accident."

ON DISLOCATION OF THE TARSAI BONES.

On the Dislocation of the Astragalus.---“ A simple luxation is a most serious accident, being very difficult to reduce ; and should the reduction not be effected, the patient is ever after doomed to a considerable degree of lameness.”

This bone may be dislocated either inwards or outwards, and requires powerful extension, sometimes even with pulleys, when the bone is to be forced into its place. Tartrite of antimony may be also necessary. In one case of compound dislocation of this bone, amputation of the limb was performed. In another instance a Mr. Tyre removed the bone entirely. The same was done by Desault and others. The five anterior bones of the tarsus are sometimes dislocated from the os calcis and the astragalus, in consequence of a heavy weight falling on the foot. It is very rare and is to be reduced by extension, and turning the fore part of the foot into its place.

Mr. A. Cooper says, he has seen two cases where the *os cuneiforme internum* was dislocated inwards, in consequence of a violence that ruptured the ligament connecting it with the middle cuneiform bone. It is to be reduced, and confined in its place by passing a bandage around the foot, and, after the inflammation is subdued, by wearing a strap and buckle in the same manner.

The first phalanx of the great toe is sometimes dislocated from the first metatarsal bone. Its reduction is quite simple.

COMPOUND DISLOCATIONS.---The bones are to be immediately carefully washed clean of all extraneous matter, blood &c., and reduced ; the edges of the wound to be brought accurately together and union promoted by the first intention, in order to reduce it to a simple dislocation. If union does not so take place, employ all the after-treatment as in compound fracture. Amputation is by no means so frequently performed in those cases as formerly, particularly at the ankle. Advanced age of the patient ; extensive injury of the integuments, vessels, nerves, &c. ; shattered state of the bones ; difficulty in effecting reduction, and retaining it so ; irritable habit ; extensive suppuration, and high local irritation supervening, are all causes for amputation ; and the judgment of the surgeon must decide when the operation is necessary. Mr. Cooper is not an advocate for amputation for the removal of tetanus, should that arise ; nor, in cases at the ankle joint, on account of the anterior tibial artery

being wounded. He further says, "if the lower extremity of the tibia be broken into small pieces, the loose portions of bone ought to be removed and the end of the tibia smoothed by a saw; but if in addition to this comminution, the lower extremity of the tibia be obliquely broken, and a large loose portion of bone be felt with the fingers, then it will be proper to amputate; also if the astragalus be broken, the portions of this bone should be removed, or they will separate by ulceration, or occasion unnecessary local irritation. But if the end of the tibia and tarsal bones, as the astragalus and calcis, are broken, then the operation of amputation will be required."

Sawing off the ends of bones is sometimes practised in compound dislocations at the ankle, and the reasons assigned for so doing are,—difficulty in effecting the reduction, or its being complicated with an oblique fracture, so that the bone when reduced will not remain upon the astragalus. It also, by lessening the length of the limb, lessens the liability of the muscles to contract. It also lessens the local irritation, because the adhesive process will sooner take place between the end of the tibia and the astragalus. Suppuration too, when it ensues, is less, because one half of the cartilage is already removed, which would otherwise exfoliate. Mr. Cooper has known no case of death occur after this was done. He has on some occasions contented himself with removing the cartilage, only, from the end of the bone with a strong knife. The limb is not much shortened by this operation, nor is the degree of ankylosis so great as is commonly imagined. The motion of the tarsal bones becomes much increased. Mr. Cooper says, "if the dislocation can be easily reduced without sawing off the end of the bone; if it be not so obliquely broken, but that it remains firmly placed upon the astragalus when reduced; if the end of the bone be not shattered, for then the small loose pieces of bone should be removed, and the surface of the bone be smoothed by the saw; if the patient be not excessively irritable, so as to occasion the muscles to be thrown into violent spasmodic actions in the attempt at reduction, and which leads to subsequent displacement when the limb is reduced; the bones should be at once returned into their places, and the parts should be united by the adhesive inflammation; but rather than amputate the limb, if the above circumstances were present, I should certainly saw off the ends of the bones."

In disposing of the limb Mr. Cooper remarks: "A many-tailed bandage is applied, the portions of which

should not be sewn together, but passed under the leg, so that any one piece may be removed when it becomes stiff, and by fixing another to its end, it can always be applied afresh, without any disturbance to the limb; this bandage is to be kept constantly wet with spirits of wine and water. A hollow splint, with a foot-piece at right angles, is to be applied on the outer side of the leg, in the dislocation inwards, and the leg is to rest upon its outer side: but in the dislocation outwards it is best to keep the limb upon the heel, with a splint both upon the outer and on the inner side, with an aperture in the splint opposite to the wound.

“The patient’s knee is to be slightly bent in each dislocation, to relax the gastrocnemius muscle. The foot must be carefully prevented being pointed; great care being taken to keep it at right angles with the leg, otherwise the limb will be useless when the wound is healed. The patient is to be placed on a mattress, and a pillow is to reach from half way above the knee to beyond the foot, and another is to be rolled under the hip, to support the upper part of the thigh-bone.” Bleeding and a cathartic may be afterwards necessary; also poultices, if suppuration takes place, as well as leeches upon the limb at a distance from the wound. Afterwards removing and obviating any difficulties which may arise. Consult *Desault’s Journal of Surg.* *Pott on Fracture and Dislocation.* *Hey’s Prac. Obs.* *White’s Cases.* *Cooper’s Surg. Dict.*

I omitted when speaking of dislocations of the thigh, to mention the simple and ingenious method of Dr. Smith of New-Haven, for reducing the bone when in the ischiatic notch. It consists merely, in bringing the knee up to the breast, throwing it outwards, and bringing it down again. This, if I rightly understand it, is all that is necessary to effect the reduction.

DIURETICS. *Stimulating.* Turpentine, cantharides, juniper-berries, squills, &c. *Refrigerating.* Nitre, nitrous spirit of ether, alkalies, supertartrate of potass, watery liquors. *Narcotic.* Foxglove, tobacco, nightshade.

DOG-WOOD. *Cornus Florida.* The bark. This is considered a good indigenous substitute for Peruvian bark. When recent, a few drops of tincture of opium should be added to each dose, or it is apt to gripe; by keeping a year, it loses this gripping quality.

DOVER’S-POWDER. Sudorific, gr. v. to xx. See *Ipecacuanha.*

DRACUNCULUS. See Worm, Guinea:

DROPSY. *Hydrops.* A preternatural collection of watery fluid in the cellular membrane ; or in either of the cavities of the body. There are several species.

1st. DROPSY OF THE CELLULAR-MEMBRANE. *Anasarca.* *Symptoms.* A soft, pale, inelastic swelling, leaving a pit or mark of the finger upon pressure ; first shewing itself upon the ankles ; increasing in the evening and diminishing in the morning, gradually extending over the whole body ; even the cellular substance of the lungs and other viscera become affected, producing cough, difficulty in breathing, expectoration of watery fluid, &c. The urine is pale and copious occasionally, but generally high coloured and scanty, depositing a reddish sediment ; costiveness ; constant thirst ; dryness of the skin from suppression of perspiration ; torpor ; lassitude ; quick pulse ; slow fever. The cuticle is for the most part hot, and occasionally inflamed ; the water, too, now and then oozes through its pores. Both sexes and all ages are liable to its attacks. *Causes.* Dropsical idiosyncrasy organic diseases, as schirrosities of the liver, spleen, mesentery, &c. also polypi in the right ventricle of the heart or ossifications of the valves of the aorta ; the pressure of aneurismal and other tumors upon the thoracic duct ; excessive discharges ; suppression of customary evacuations ; exposure to cold and moisture ; sudden recession of eruptions ; intemperance ; general debility. It frequently follows intermittents, jaundice, asthma, scarlatina, &c. Its proximate cause is an increased effusion from the exhalants, or a diminished action of the absorbents ; probably both. It may be known from all other swellings by its inelasticity, and by its leaving the print of the finger for some time when pressed on. A *favourable prognosis* may be drawn when it depends on debility, visceral obstructions, (if not scirrhus) when recent ; or when the thirst abates, perspiration, spontaneous vomiting, purging, or increased flow of urine comes on. *The contrary*, when it depends on organic diseases of the heart or valves, schirrosities, &c. ; also if there is erysipelatous inflammation, petechiæ, hæmorrhage, much fever, drowsiness, &c.

Treatment. The indications are, 1st. to remove the exciting causes ;---2nd. to evacuate the fluid effused ;---3d. to restore the tone of the system. The first is fulfilled by avoiding or removing as far as practicable whatever may have tended to produce the disease ;---thus if intermittents, or jaundice, &c. be the cause, such disease requires primary attention ;---if eruptions have been suddenly repelled or long-accustomed evacuations suppressed, these must be

quickly restored. The 2d is fulfilled by scarifying, or making small punctures with a lancet, in the most dependent part, twice, or thrice a day, and fomenting the part with warm water---(blisters and caustic are also used, but are less advisable); by promoting the action of the absorbents, by means of frictions and bandages; by emetics of the sulphate of copper, repeated every two or three days; by cathartics of an active kind, as the supersulphate of potass joined with jalap or elaterium; by diaphoretics, assisted with warm diluents and the application of steam if practicable; by mercury, particularly if the disease inducing dropsy can be remedied by its use, such as affections of the liver, spleen, &c.; by diuretics, as squills, colchicum, crystals of tartar, nitrous spirit of ether, digitalis, juniper, turpentine, cantharides, tobacco, &c. promoted by drinking freely of diluents, the objections to the use of fluids being groundless; by tonics, if from general debility. The 3d is fulfilled by giving a light and nutritive diet; by wine, aromatics, and tonic bitters, either alone or combined with diuretics; by exercise, cold bathing, &c. Erysipilatous inflammation terminating in gangrene is not unfrequent, and, when it occurs, the part may be bathed with a lotion composed of two drachms of the acetate of lead, and half a pint of water. See *Mortification*. When a dropsical swelling affects the limb from local cause, it is denominated *Œdema*, which see. Consult *Huxham's Works*. *Monroe on Dropsy*. *Abernethy in the Med. Chirurg. Trans.* *Cruckshank and Goodland on Absorbents*. *Blackall on Dropsies*. *Rush, Med. Inq. and Obs.* *Warren in Med. Com. of Mass. Med. Soc.* *Moore and Hosack in Am. Med. Philo. Reg. Vol. 2 & 3.*

DROPSY OF THE ABDOMEN. *Ascites*. In this species the fluid is either collected in the peritoneum, called *peritoneal dropsy*, or in one or more distinct bags, and is then called *encysted dropsy*. The latter is most common in the female, and is seated in the ovaria; hydatids are supposed to give rise to it. In the advanced stages of ascites, particularly the peritoneal, the feet and legs become swelled, and sometimes it is connected with general anasarca. The *encysted* kind is a local affection, not being preceded by any cachectic symptoms; neither is it accompanied, until its latter stage, with any cough or difficulty in breathing, or anasarca, and in this case it is not constitutional, but the effect of pressure upon the different viscera. It moreover begins on one side, generally the left. The causes of the peritoneal, are those enumera-

ted under anasarca ; those of the encysted, blows, the effects of pregnancy, hydatids, &c.

Treatment. This is similar to that of anasarca, except that the fluid is to be evacuated by puncturing with a trochar and cannula, when all other remedies have failed. Dr. Fothergill and others, however, recommend paracentesis early in this disease, repeating it as often as the fluid accumulates, instead of reserving it for a dernier resort. For the method of performing this operation, see *Paracentesis*. After the operation, the treatment before observed must be rigorously persevered in. Consult *Fothergill's Works*. *Monroe on Dropsy*. *Blackall on Dropsies*. *Rush's Med. Obs. & Inq.* *Dyckman's Dissertation on the Pathology of the Fluids*. *Hosack in Med. & Phi. Reg. vol. iii.*

DROPSY OF THE WOMB. *Hydrometra.* When water collects in this cavity, it is generally contained in one or more white bladders of various sizes, formed in consequence of the death of the ovum, or retention of a part of the placenta. Sometimes a large mass of vesicles is discharged by pains like those of labour, the removal of which may be often facilitated by introducing the hand for its extraction, adopting the necessary means, should hemorrhage ensue. If the disease consists of one large hydatid, it should be punctured through the os uteri, and future collections of fluid prevented, by keeping this part open with a bougie. Consult *Percival's Works*. *Cheston's & Ruysch's Obs.* *Douglass in Phil. Trans. Royal Soc. vol. 5.* *Belcher, in do. vol. 7th.*

DROPSY OF THE CHEST. *Hydrothorax.* In this case the water, or, as is frequent, hydatids may be accumulated in one or both pleura, or in the pericardium.

Symptoms. Difficulty in breathing, increased upon motion or taking the horizontal posture ; cough ; anasarca of the feet and legs, and sometimes of the face ; debility, emaciation, thirst, diminution of urine, &c. These symptoms increasing, the patient is soon unable to lie down from a sense of suffocation ; is startled from his sleep by frightful dreams, anxiety, and a sense of choking ; he has frequent paroxysms resembling spasmodic asthma, attended with violent palpitations of the heart ; coldness of the extremities, and cold clammy sweats ; plumpness of the face ; lividness of the lips. The pulse is feeble and intermits in an extraordinary manner, and a sense of numbness extends towards the insertion of the deltoid muscle. Drowsiness, coma, and delirium also occur, and occasion-

ally the patient feels a fluctuation in his chest. Death is generally produced by suffocation or apoplexy, from the pressure of the water impeding the motion of the lungs.

It is very doubtful if any of the signs, pointed out by authors for distinguishing in which pleura the fluid exists, are accurate. When in the pericardium, it exists, generally, in both pleura, though not always. Hydrothorax mostly occurs in males, and in the latter part of life. It may exist separate, or conjoined with general anasarca, and the fluid is now and then collected in the cellular tissue of the lungs. Its *Causes*, are those of anasarca, particularly long continued asthma and organic diseases of the thorax. It is known from angina pectoris, &c. by fluctuation upon percussion, (not confounding it with undulations of the stomach;) also by the uneasiness produced in making pressure on the abdomen. From empyema it is known, by a close attention to the symptoms just enumerated. The *prognosis* must be, generally, unfavourable, particularly in shattered constitutions and old persons, if the disease depends on organic affection, and if hydatids exist.

Treatment. The same plan as recommended in anasarca is to be here adopted, particularly digitalis, squills, and supertartrate of potass as diuretics, with the addition of tonics if there be much debility. Blisters are also to be applied, and frequently repeated. Inhaling oxygen-gas has been successfully tried by Mr. Barr, of Birmingham, in the proportion of one quart of gas to nineteen of atmospheric air, gradually increasing the gas to two quarts. The diuretics and other remedies are continued at the same time. Daily exercise on horseback is particularly serviceable. If this fails, and the fluctuation be quite evident, paracentesis of the thorax is sometimes resorted to, followed up with the previous treatment. Consult *Dr. Maclean on Hydrothorax, Corvisart on Organic Diseases of the Heart, &c.*

DROPSY OF THE HEAD. *Hydrocephalus.* Water in the ventricles of the brain. This disease is chiefly confined to children, hardly ever appearing after the twelfth year; it often pervades whole families, as they arrive at a certain age, particularly if they are of a scrophulous or rickety habit.

Symptoms. Three distinct stages are generally to be observed. The first begins with languor, inactivity, loss of appetite, nausea, vomiting, thirst, flushing of the face, and other symptoms of pyrexia; intolerance of light, red-

ness of the eyes, acute pain in the head, at intervals so severe as to cause the child to utter the most piercing shrieks; costiveness, with an exacerbation of symptoms in the evening. Strabismus, dilatation of the pupil and vomiting soon succeed, with an increase of all the other symptoms---when at length the pain and fever abate, and coma supervenes---which is called the second stage. The strabismus and expanded state of the pupil rather increases till the retina seems insensible; the pulse is slow and intermitting. At last the third stage appears, marked by an increase of the pulse and a recurrence of the febrile symptoms, together with stertorous breathing, involuntary evacuations, and the sufferer expires in convulsions. The disease does not always run its course in this regular way, but often comes on suddenly and with such violence as to destroy the child in a few days; but, in the generality of cases, it runs on two or three weeks.

The *causes* of Hydrocephalus are said to be, blows, tumours within the cranium, debility, laxity of the vessels of the brain, &c. But Doctors Rush, Beddoes, and Withering, suppose inflammation, or congestion of the brain to be the cause, the effusion of serum being a secondary occurrence; and that, consequently, the disease is not a dropsy, but ought to be ranked with the phlegmasiæ. Others affirm, that it is to be attributed to an increased effusion and diminished absorption, as in all other dropsical affections. Mr. Astley Cooper, in his lectures on Scrophula, says, that it is decidedly scrophulous, depending like all other forms of scrophula upon original debility, and must be treated as such. Others, who believe that inflammation is the usual cause, admit however that there are some cases, in very weakly children, which do arise from general debility or topical laxity, and then the fever and inflammation are not present. The truth probably is, that although the disease is for the most part inflammatory, (hence denominated acute,) yet it does occasionally appear under all the variety of forms above mentioned. It is to be known from other diseases by the pain in the head, intolerance of light, and by a strict attention to the other symptoms already enumerated. The *prognosis* must be always unfavourable, particularly after a stertorous breathing has commenced, attended with an intermittant pulse and involuntary discharges.

Treatment. If the attack appears purely inflammatory, and we are called in its early stage, there can be, I think, no question of the propriety of bleeding generally, and

topically, by opening the jugulars, applying leeches to the temples; adopting the antiphlogistic plan, employing purgatives, diaphoretics, and applying cold lotions to the head. Blisters in all cases are eminently useful and should cover the entire cranium. A discharge from the blistered surface should be kept up by saving ointment, or by repeating the blisters as the part becomes healed. The violence of the inflammation being subdued, the next indication is to promote absorption of the effused fluid by the use of frequent purgatives, mercury, digitalis, &c. as advised under the head of anasarca; supporting the strength with a nutritious diet. In cases depending on debility and laxity, the depleting part of the plan will be improper. Blisters, purgatives to promote absorption and produce healthy evacuations, and a generous diet will be proper; also sternutatories and electricity. Where the case seems purely serophulous, it should be treated with frequent mercurial purges, bark, good air, exercise, wine, jellies, &c.; first subduing any inflammatory action that may happen to exist. Consult, *Dr. Cheyne's Essay*, also *Dr. Whytt on this disease*, *Dr. C. Smyth on do.* *Rowley on Membranous Dropsy of the Brain.*

DROPSY of the Scrotum and Spermatic Cord. See *Testicle*.

DROWNING. See *Asphyxia*.

DYSENTERY. *Dysentaria.* When this disease appears in prisons, camps, &c. or is attended with fever of the typhoid type, it is certainly contagious; but when it occurs in the simple form in solitary cases, its contagious nature may be doubted. It is frequently blended with intermittent and remittent fevers, in those countries where these fevers prevail. It also becomes endemic in the vicinity of marshes;---is most frequent in the autumnal season and warm climates. There are two distinct stages of dysentery; the acute, where fever and inflammation exist, and the chronic, where these are subdued and the disease is kept up from habit, and debility of the intestines.

Symptoms. Pyrexia, either of the synocha or typhoid type, frequent inclination to go to stool, attended with fetid discharges of mucus, sometimes of pure blood, often both, and occasionally indurated masses of feculent matter in balls called scybala, which always afford temporary relief. After the disease has continued long enough to produce ulceration and gangrene of the intestines, the discharge consists of pus, or putrid sanies, films of a membranous appearance, or sebaceous matter floating on the surface of liquid matter. In addition to these symptoms there is a distressing tenesmus and bearing down, flatulence, nau-

sea, vomiting, and, just before each stool, most severe cutting pains; emaciation, debility, constant thirst, tongue very dry, foul, and often black, teeth loaded with sordes, hic-cough, putrescency, and death often in a few days. *Causes.* Specific contagion, cold and moisture after intense heat; noxious exhalations from stagnant water; unwholesome food. Its *proximate* cause is an inflammation of the mucous membrane of the intestines. *Prognosis.* *Favourable*--- A warm and general perspiration, stools becoming more feculent and attended with less pain and frequency. *Unfavourable*--- Increased severity of the symptoms, aphthæ, petechæ, tongue foul and dry, coldness of the extremities, convulsions, &c.; occurring in the advanced stages of other diseases, as scurvy &c.

Treatment. If the concomitant fever be of the synocha type, and the patient be moreover young and with a full pulse, it will be necessary to draw blood from the arm, cautiously however repeating the operation from the tendency of the fever to become typhoid, and from the quantity of blood which is often lost by the bowels. The object must be, after having cleared the stomach by an emetic, to remove the scybala from the bowels by means of gentle purgatives of rhubarb, with or without calomel, neutral salts or castor oil and frequent emollient clysters. Ipecachuana in small and repeated doses, joined with calomel is found a very useful purgative. Purgatives indeed must be continued until all the scybala are removed. The patient, however, is to indulge the inclination of going to stool as little as possible, and, when there to avoid straining all in his power. The cerated glass of antimony has been much used for evacuating the stomach and bowels. Diaphoretics, fomentations and blisters to the bowels are proper. To relieve pain and irritation, give opium hyosciamus, glysters of starch and opium, use the warm bath, pass a pill of opium into the rectum; the patient taking plentifully of chicken broth, sage, flax-seed tea, acacia gum, &c. When the pain, fever and tenesmus are removed, we may begin with astringents, joined with tonics, as kino, catechu, logwood, cascarilla, columbo, with the addition of aromatics and port-wine, to put a final stop to the disease, and to prevent it from becoming chronic. If typhoid symptoms threaten, the nitric acid joined with opium may be advantageously exhibited, together with other powerful antiseptics.

When we are called upon to treat chronic cases, which are always obstinate, it is of the utmost importance to discover and remove any other disease with which they may

be complicated.---Thus if the liver be affected, which may be known by whitish or clay-coloured stools, yellowness of the skin, &c. we are to put the patient upon a gradual and continued course of mercury, giving at the same time tonics, astringents, with a light and nutritious diet, advising moderate exercise, good air, and, if in a hot climate, a removal to a colder one. If Dysentery be complicated with intermittent fever, the cinchona bark and other treatment under that head will be proper.---Warm clothing, particularly about the bowels and feet, is very necessary. Malt liquors and vegetables are quite improper.---Where the disease is contagious, care must be taken to remove each stool immediately from the apartment and to bury it. Fumigation and ventilation must also be employed. Consult *Harty's observations on Dysentery*. *Pemberton's Treatise on the diseases of the abdominal viscera*. *Dewar on Diarrhœa and Dysentery of Egypt*. *Huxham, Mosely, on tropical climates*. *Johnson on do*. *Gallup, sketches of epidem. diseases of Vermont*.

DYSMENORRHOEA. *Difficult menstruation.*

DYSPEPSIA. See *Indigestion*.

DYSURIA. See *Urine, retention of*.

EAR-ACHE and inflammation of the ear. See *Inflammation of the ear*.

EAR, Diseases of. See *Deafness*.

ECCHYMOSIS. *Ecchymoma*. This is a soft, livid or blue swelling, caused by the escape of blood into the cellular membrane from small vessels which have been ruptured by a blow, sprain or contusion. It is most conspicuous four or six hours after the accident. Its absorption is readily facilitated by the application of discutient lotions, as R. Ammonizæ Muri. Aceti, Alcohol. sing. f. ʒ xvj. M. &c. and the exhibition of purgatives.

ECSTASY, and **ENTHUSIASM**, result from attention to an object on which the sufferer's hallucination ever rests. Ecstasy is frequent in nervous affections; sublime, contemplative, amorous, obscene, according to the subject which the sufferer meditates.

ECTROPIUM, or **ECTROPEON**. See *Eye*.

EFFUSION. The escape of any fluid from its vessel or cavity, by wound or otherwise, into the surrounding parts. See *Extravasation*.

ELATERIUM, *Elaterium*. The extract of the fruit. Drastic purgative, gr. ʒ to gr. iij.

ELDER. *Sambucus*. The berries. *Extractum Sambuci*, laxative ad libitum.

ELECAMPANE. *Inula*. The root. Gently stimulating $\S i$. to $\S i$.

ELEPHANTIASIS. In this disease there is an enormous swelling of one or both legs, so as to resemble the limbs of the Elephant. Its seat is the cellular membrane and is doubtless caused by obstruction in the absorbents. It is prevalent in the West, and on the Malabar coast in the East Indies.

Symptoms Pyrexia. Severe pains in one of the inguinal glands, which soon becomes swollen, hardened, inflamed, affecting all the absorbents of the limb, but seldom suppurates, the fever departing and returning at uncertain intervals. The leg soon becomes very much enlarged, the veins are varicose, the cellular substance thickened, scales form on the part which do not fall off, but enlarge and thicken, causing elevations and depressions over the whole limb.---The disease may continue many years, producing no other inconvenience than its bulk and the occasional paroxysms of fever and inflammation. Whatever may be the remote causes, the proximate is evidently an inflammation and obstruction of the inguinal glands, and the absorbents from the limb below leading to them, in consequence of which the fluids from the exhalants cannot be returned into the system.

Treatment. The usual method is to cleanse the stomach and bowels, and give diaphoretics during the presence of fever, using the warm bath, applying fomentations. In the absence of fever and inflammation, cinchona-bark, alteratives, decoctions of sarsaparilla, mezereon, &c. and pressure by means of strips of adhesive plaster, issues, electricity, good air, &c. Probably it would be advantageous to treat the attack, in the onset, as a case of acute inflammation, by general and local blood-letting, purging, diaphoretics, the antiphlogistic regimen; by the applications of evaporating lotions, and enjoining immobility and a horizontal position of the limb. As soon as the inflammation is subdued, resort to the tonic and alteratives.

Amputation has sometimes been resorted to; but the other leg is liable to become affected in the same way. See *Dr. Hendy on glandular diseases of Barbadoes*. *Dr. Hillary on Diseases of do.* *Thomas' Practice*.

ELM, Slippery. *Ulmus*. The inner bark. Emollient and obtunding in catarrh, dysentery, &c. *Infusum Ulmi*, same $f \S j$ to ijj . Externally the root is applied to eruptions, tumours, &c.

EMETICS. Antimony, Ipecachuana, squills, zinc, sulphate of copper, tobacco, foxglove, white hellebore, warm water, irritating the fauces, &c. &c.

EMMENAGOGUES. Articles which promote the menstrual flux, as iron, mercurials, antimonials, black hellebore, savin, ammoniacum, aloes, myrrh, cantharides, assafoetida, castor, cold bath, pediluvium.

EMOLLIENTS. Softening and relaxing applications, as fomentations, poultices, oleaginous substances, warm water, warm vapour, simple ointments.

EMPHYSEMA. By this term is meant a diffusion of air into the cavity of the thorax, and from thence into the cellular membrane. It arises from a wound of the lungs, caused by the spicula of fractured ribs, or from punctured wounds which have a small external aperture, or from an external wound which just enters the thorax merely without injuring the lungs. Air, then, from either of these causes, getting into the cavity of the pleura during the vacuum produced there by expiration, when by the expansion of the lungs in inspiration, the air is forced through the opening existing in the parietes of the chest into the cellular membrane, from whence it may extend to every part of the body, producing enormous swelling. But sometimes it does not thus diffuse itself and then the diaphragm, mediastum and opposite lungs undergo compression so great as to endanger suffocation. It may always be distinguished from other swellings by a crepitus or crackling produced on making pressure.

Treatment. When the wound is external and the lungs uninjured, it may be with safety closed, to prevent a further ingress of air, leaving what has already entered to be pressed into the cellular membrane by the expansion of the lungs and then absorbed, relieving pressing symptoms of suffocation, by bleeding and making small scarifications for the exit of the air as it passes into the cellular substance if necessary. But if, after the external wound is so closed, the difficulty of breathing is increased and the emphysema spreads, we may infer that there must be a small aperture in the lungs, when it will be proper to remove the plaster and allow a free ingress and egress of air through it, dilating it for this purpose if necessary, taking care to cut upon the upper edge of the rib to avoid the intercostal artery. If the wound be not conveniently situated, and the symptoms become urgent, paracentesis must be resorted to; after five or six days, the wound in the lungs will be healed, so that the wound externally may be healed by replacing the plaister as before. Bandages around the chest are improper, unless rendered necessary from fracture of the ribs. In very great and extensive emphysema of the

cellular substance, general scarifications and frictions are to be adopted. Cases of Emphysema are said to have occurred from ulceration of the lungs, obstructions of the trachea, from the efforts of labour, &c. Consult *J. Bell on wounds of the Breast. Halliday on emphysema. A case in Abernethy's works. Lewson's paper in the Med. Obs. and Inq. vol. 3d. S. Cooper's works.*

EMPROSTHOTONOS. See *Tetanus*.

EMPYEMA. A collection of purulent matter within the cavity of the chest.

Symptoms. Enlargement of that side of the chest in which the matter is situated, an œdematous swelling of the integuments, sometimes extending throughout the affected side, difficulty of lying on the opposite side, swelling and fluctuation between the ribs, difficulty in breathing, cough, anxious countenance, preceded by rigours, generally following abscess of the lungs or liver. It requires the operation of paracentesis. The matter may be collected in either bag of the pleura, or in the anterior mediastinum; when in the latter, it may produce a caries of the sternum; ---the application of the trephine is then necessary. The matter may be also collected in the substance of the lungs, and adhesion be formed between it and the pleura costalis; such a case can be also relieved by paracentesis. Acute and chronic abscesses do occasionally form in the cellular substance, between the pleura, ribs, and intercostal muscles, affording a distinct fluctuation. Such a case not long since fell under my own care; the preceding symptoms convinced me it had no internal communication. They are not dangerous, and require only to be opened and treated in the common way. Consult *Sharp on this subject in his Critical inquiries. Le Drau's Obs. Warner's Cases. Hey's Prac. Obs. &c.*

ENEURESIS. See *Urine*, incontinence of.

ENTERITIS. See *Inflammation of the Bowels*.

ENEMA. See *Glysters*.

ENTEROCELE. See *Hernia*.

ENTHUSIASM. See *Ecstasy*.

EPHEMERA. *Simplex.* See *Fever*.

EPILEPSY. *Epilepsia.* A convulsive disease with loss of consciousness. It generally comes on with a cry; the sufferer falls convulsed; the hair bristles; the forehead is wrinkled; eyes project, are inflamed, generally shut, fixed, or rapidly convulsed, sometimes tremble continually and quickly. The face swells, becomes distorted, red, livid, black; the lips project, lengthen, froth; the jaws are fixed together, or parted almost to dislocation; the tongue

extends out of the mouth, is wounded by the teeth, these break with gnashing. The voice is but groans and sighs, as of people under strangulation, sometimes howling. Some sufferers say strange, extravagant things. The vessels of the neck and head seem ready to burst. The head rotates to each side, and back and forth, or is fixed at one of these points. The sufferer, suddenly thrown down, rises to fall again, or remains in a state of general tetanus, makes with the greatest readiness, every possible motion, develops his muscles to their utmost. Closure of the thumb is very frequent. Some sufferers kill themselves with blows. The pulse, at first small, becomes frequent, hard, unequal, imperceptible, convulsive; respiration, eructation, vomiting, emission of urine and sperm, involuntary stool, profuse sweat, blood from the nose, eyes, and ears, follow.

After the fit, the countenance expresses surprise, the sufferers are sad, bashful, very susceptible; restorative sleep generally follows; some are pale and languish many hours and even days.

When the fits become frequent and violent, death is to be feared, in the consequent debility. The exercise of thought is re-established immediately, with many sufferers; with others, after some hours or days; with a few, never. None are conscious of, or remember the fit. Some fits are followed or attended by blindest fury, most dangerous mania, lasting from a few hours to eight days; the sufferers, having no intelligence, nothing intimidates them. Generally, the intellect is gradually weakened, memory and imagination lost, the sensations have not their usual vivacity, incurable demence follows.

Of 289 epileptic poor women in a Paris-hospital, 80 are maniac, 56 imbecile, or in demence. Epilepsy complicated with insanity is not cured, and is soon fatal; consequent to anger, it is transient; to fright or chagrin, it is harder of cure.

Some sufferers experience but the forerunners of a fit, vertigo, stunning noise, general feverish chillness, then stiffness, or convulsion of a limb, of the head, lips, with instantaneous loss of sensation, a feeble cry, then they resume conversation where it was interrupted. Some only shake the head or limbs, clench the hands, run till they fall, or lose consciousness. Such affections appear in people who afterwards suffer complete fits.

Epilepsy is more frequent in women after 7 years of age, than in men, and in melancholic temperaments; most frequent, mild, and curable in infants;

may be confounded with common convulsion. When they have a dry, stubborn cough; pain in the belly without diarrhoea, become rickety, have swelled testicles, the hand emaciated, the arm impotent, the leg feeble and limping, are frightened, weep, yawn, rub their forehead, existence of epilepsy is to be suspected.

Those attacked soon after birth are seldom cured, specially if not before puberty. Those attacked between 3 and 10 years are cured, if seasonably attended to. Those a little before puberty, are cured when that is completed.

The fits last from some seconds to six hours, generally from 5 to 20 minutes, return at various intervals; some in sleep, these sufferers' beds should be low, or like a box. Sometimes the fits alternate in intensity. Sometimes there are many together, then an interval of health, then many together. Some are without warning. Heaviness, frightful dreams, fancied sensation of disagreeable odours, irritability, exaltation of the intellect; pain, nausea, faintness, cold, a vapour at some part, this extends itself; when it reaches the brain, the sufferer becomes unconscious. That part should be blistered.

Epilepsy sometimes ends under re-establishment of suppressed hemorrhage or eruption, full dejections, cessation of menstruation; sometimes epilepsy is then aggravated. Menstrual disorder sometimes follows the fit, according to its severity. The sufferers are slothful, much inclined to coition, many to masturbation; epilepsy sometimes follows coition, after it epilepsy is aggravated. Pregnant women, becoming epileptic, are in great danger. When the fits are frequent and violent, death is to be feared in the consequent debility. Sight of a fit is sometimes followed by epilepsy in a healthy person. What seems to originate epilepsy, seems capable, even when less efficient, of reproducing it: whatever disorders the system seems reproductive of it. People, subject to epilepsy, should avoid determination of blood to the head. Disorder of the digestive organs, plethora, suppressed perspiration should be relieved, the skin irritated if the disease principally affects the head, or is not confined to any part.

In the fit, nothing is to be done, but to prevent the sufferer from doing mischief.

Esquirol.

English authors advise bleeding during the fit; blisters, issues, and setons to the part whence the aura arises; also the metallic tonics, particularly the nitrate of silver. When symptomatic of worms, &c. such disorders require immediate attention. Consult *Dr. Frazer's Treatise*.

EPISTAXIS. See *Hemorrhage from the Nose*.

EPISTHOTONOS. See *Tetanus*.

ERETHISMUS. Increased sensibility and irritability. There is a peculiar state of the system induced by the use of mercury acting as a poison, called by Mr. Pearson *mercurial erethismus*. It is known by great depression of strength, anxiety, vomiting, trembling, intermitting pulse, pallid countenance, palpitation; but the tongue is not furred, nor are the vital functions disturbed, but any sudden exertion will sometimes prove fatal. He recommends the mercury to be discontinued, and the patient exposed to a dry and free air, using camphor, volatile alkali, decoction of sarsaparilla. See *Pearson on Lues Venerea*, p. 156.

EROSION. Synonymous with *ulceration*, which see.

ERRHINES. Medicines which, when applied to the nose, excite sneezing, and increased discharge of mucus; such as white and black hellebore, tobacco, ipecac-huana.

ERUPTIONS in Children. Of the many different kind of eruptions in children, perhaps the greatest part depend on acidity, irritating matter in the primæ viæ, teething, and possibly some are efforts of nature to throw off something acrid, which might otherwise be hurtful to the constitution.

Of the red gum. This appears in small red spots on the face, neck, and now and then over the whole body; sometimes they are in patches, at others in small pustules, containing a limpid or purulent fluid. It requires nothing but a little magnesia occasionally: should it suddenly recede, producing sickness and vomiting, warm cordials are necessary, also the warm bath.

The Crustæ Lactea is seen about the head, face, and mouth, in the form of large, ill-looking scabs, pouring out an ichor, which causes much itching, is harmless, and leaves no scar---often departs when the front teeth are cut, and looks not unlike the small-pox. It is to be treated with mercurial purges, alteratives, absorbents, application of saturnine washes and ointments, blisters behind the ears. There are other rashes, differing nothing materially from the preceding, except one, which puts on the appearance of itch, and comes out about the arms and thighs. The sulphur-ointment and proper physie and diet will remove it. If the milk evidently disagrees with the child, it should be weaned, or another nurse provided. In all these cases, children should be kept moderately warm, and the bowels free. Consult *Drs. Armstrong and Underwood*.

ERYSIPELAS. This is one of those species of inflammation denominated *specific*. (see *Inflammation*). It is gene-

rally confined to the skin and cellular membrane, it often extends over a great extent of its surface, sometimes healing behind as it extends forward, and sometimes leaving one part and making its appearance in another. It differs from phlegmonous inflammation, in being unattended with throbbing, and in not pouring out adhesive matter. It does not, but in one form, terminate in suppuration; resolution being most frequently its result, though occasionally gangrene. The disease has no determinate border as in phlegmon, consequently when suppuration or gangrene does ensue, it is very extensive and destructive, as there is no cyst-like barrier to confine its ravages, as in phlegmon. Very violent cases terminate in gangrene, which often prove fatal. But there are cases, when, with symptoms of erysipelas, the inflammation partakes of the phlegmon, and forms good pus. This mostly happens in young and plethoric habits. It sometimes prevails epidemically, and is most frequent in summer and autumn. In hospitals and ships of war it is so much under the influence of a peculiar state of the atmosphere, that every wound, ulcer, &c. will assume erysipelatous inflammation, particularly wounds on the scalp. At such times it may be with or without constitutional affection; the latter case is by some termed erythema. Some persons are particularly liable to periodical attacks of erysipelas, particularly about the face and head, termed St. Anthony's fire. It is very troublesome, and occurs principally in bad habits and habitual drunkards. Alteratives, change of air, and mode of living, is necessary for its cure. An attack of regular erysipelas on the face and head is considered the most dangerous. There are many divisions of this disease made by authors; as, the *acute*, the *œdematous*, the *gangrenous*. That adopted by Desault is probably the best, viz. 1st. Phlegmonous, 2d. Bilious, 3d. Local.

Symptoms. Languor, headach, loss of appetite, nausea, vomiting, pyrexia, yellowness of the tongue with moisture, bitter taste in the mouth, saffron-coloured urine, &c. After two or three days, an inflammation appears upon some part of the body, of a deep red colour tinged with yellow: it is not hard, or elevated, or circumscribed as in phlegmon; the part is smooth and glossy, the red colour disappears, on pressure with the finger, but resumes its redness immediately as the pressure is removed; the pain is of the burning, itching kind. The febrile symptoms subside, on the appearance of the vesicles. The disorder abates from the eighth to the twelfth day.

When the head is the part affected, the above symptoms are very severe, attended with coma and delirium. In the

phlegmonous species, the skin is more elevated and tense than in the other, and is of a brighter colour; pain is felt on pressure; the part sometimes throbs; there is but little bitterness in the mouth; and the symptoms, generally, are more inflammatory. It seems after two or three days, particularly if bleeding has been practised, disposed to degenerate into the bilious species, but it more frequently ends in resolution or suppuration.

Causes. Violent passions, exposure to cold, wet, the sun's rays, fire, poisons; but for the most part connected with a deficiency of biliary secretions. Persons of intemperate habits are also very liable to it, more particularly if they receive any wound, blow, or scratch; atmospheric influence; crowded and ill-ventilated apartments.

Treatment. In mild attacks, moderate perspiration, a mild purge, pure air, and antiphlogistic regimen, is all that is required. But in the phlegmonous attacks, bleeding from the arm will be proper, followed by emetics and purges, to which probably may be advantageously added a grain or two of calomel, each night. In the common or bilious species, the same treatment will be proper excepting venesection. Desault, in this form of the disease, began with giving a grain of tartrate of antimony in a large quantity of water, repeating it, until the febrile symptoms and bitterness in the mouth were removed, afterwards giving a dose or two of mild purgative medicine.

After a few days, he advanced the patients from the low diet, making no external application.

He seems to have entertained similar notions with regard to phrenitis from injuries of the head. Great prostration, suppuration, and gangrene must be treated with wine, bark, musk, opium, cordials, generous diet, &c. After sufficient evacuations, cinchona-bark, sulphuric acid, wine, and other tonics, will be proper to restore the tone of the system. Authors seem to differ as to the propriety of local blood-letting, in any form of the complaint. The best modern practitioners are in the habit of applying liberally cold evaporating lotions, particularly those composed with lead, rejecting the ancient applications of hot fomentations, poultices, dry powders, &c.; the first evidently inducing, what should be particularly avoided, viz. suppuration. After the inflammation has abated, and œdema and debility only remain, topical applications of camphor will be proper. When vesicles are formed, the contents may be discharged by puncture with a needle.

In this mode of treatment my own experience fully coincides, having seen when the disease had spread epidemi-

cally in the northern part of this continent, that the fears of metastasis from applying cold washes were totally groundless.

If symptoms of gangrene appear, the same treatment will be applicable as advised under mortification. Many consider a tea-spoonfull of cinchona bark, given every hour, as a specific in gangrenous erysipelas: it is to be remitted for a short time, and then resumed should it affect the stomach or bowels. See Dr. Wells, in Soc. for promoting Med. and Chirurg. Knowledge, London.

In the local form of this complaint, or where it attacks the integuments surrounding wounds, Desault always endeavoured to promote a discharge of matter from the wound itself, by applying cataplasms to its orifice; but used saturnine washes to the surrounding inflammation, pursuing the other part of the treatment, as above detailed.

ERYSIPELAS INFANTILE. This mostly occurs in lying-in Hospitals, and comes on a few days after birth: its progress is very rapid, the parts soon become hard, livid, and sphacelated; it appears most commonly upon the genitals in both sexes, which appear to be distended with matter, coming down from the abdomen through the rings. Dr. Underwood found the most successful applications to be linen compresses wrung out of camphorated spirit and applied frequently, giving at the same time decoction of bark, either by mouth or clyster, with the addition of aromatics and cordials. It often proves fatal in a few days. A milder species makes its appearance about the fingers, hands, and ankles, but usually goes off in a short time. Consult *Desault in Parisian Chirurg. Jour. vol. 2d. Pearson's Principles of Surg. Hunter on Blood, &c.*

ERYTHEMA. A redness of any part.

ERYTHEMA MERCURIALE. This disease remained unnoticed until about sixteen years ago, when it was pointed out by Drs. M'Mullin and Moriarty, and others, in Dublin. Mr. Pearson, however, says he had observed it for several years previously. It generally makes its appearance about eight or ten days after the mercurial course has commenced. Dr. M'Mullin points out three distinct stages. The *first* begins with rigours, flushings, and all the symptoms of fever, the tongue moist, covered with a glutinous slime, or irregularly or morbidly clean; also costiveness, prickling heat, and dryness of the skin. In a day or two an eruption appears, of a dark or bright red colour, not unlike measles, which speedily runs together, exhibiting a general red suffusion, the colour disappearing upon pressure. It mostly appears upon the in-

side of the thighs, or where mercurial friction has been used ; there is generally an increase of febrile symptoms as the eruption comes out, and the patient is restless and uneasy. The throat becomes sore, the tongue swells, and the eyes inflame, and this stage ends with a desquamation of the cuticle ; and if the attack be mild, the disease departs. If *severe*, the *second stage* sets in, marked with numerous minute vesicles, filled with a pellucid fluid, which are ruptured by the patient in scratching, to relieve the troublesome itching. An acrimonious fluid issues, intolerably offensive, in great quantities, from the groins, or wherever the skin lies in folds. This dries and forms incrustations, which mark the accession of the *third stage* ; ---they are shortly thrown off, of a yellow or dirty colour. This Dr. M'Mullin calls the stage of *decrustation*, in contradistinction to the first, or stage of *desquamation*. The throat and eyes become more inflamed, the face suffers particularly from the eruptions, which crack, leaving hideous fissures. The fever is of the typhoid kind, but the appetite is unimpaired. In this state it will continue many weeks, old eruptions departing and new ones arising, till at last the patient is worn down by disease and debility ; cough, diarrhœa, and delirium supervene, when death closes the scene. Dr. M'M. supposes the disease to be produced by the application of cold during a course of mercury, from catarrhal symptoms being present. Mr. Pearson, however, thinks that cold is not concerned in producing it.

Treatment. Mr. Pearson advises mild diaphoretics, gentle purges, and opium at night ; sarsaparilla and bark when the swelling departs and the discharge ceases to be ichorous ; also warm bath, frequent changes of linen, and generous diet, applying mild cerate and sometimes washing, with gruel, the parts where the cuticle is detached. To the eyes, Dr. M'Mullin says, may be applied ointments, prepared from zinc, and, to the cracks in the skin, the liniment of lime water. He advises, too, the removal of the patient to a different apartment, and the suspension of mercury ; but does not differ materially in other respects from Mr. P. Consult *M'Mullin, Edinb. Med and Surg. Jour. No. 5.* Dr. Moriarty and Mr. Alley, Dublin, in *Essays on the same subject.* Pearson on *Lues Venerea*, 2d Edition.

ESCHAROTICS. Applications which form an eschar, or deaden the surface to which they are applied. The term seems restricted to the mildest kind of caustics, as nitrate oxide of mercury, subacetate of copper, sulphate of copper, dried alum, loaf sugar, &c.

ETHER. *Æther. Æther Sulphuricus.* Antispasmodic, cordial, stimulant, ℥ xv. to ʒ ʒ. *Spiritus Ætheris Sulphuricus*, same, f. ʒ ʒ to ij. *Spiritus Ætheris Sulphurici Compositus*, (Hoffman's Anodyne Liqueur,) same, f. ʒ ʒ to i ʒ. Externally, applied to any part, and freely exposed to the air, it produces cold by its rapid evaporation, hence it is used for reducing strangulated hernia, &c. But, if covered and excluded from the air, it acts as a stimulant, and is a good rubefacient in rheumatism, useful in headach and toothach, applied to the parts affected. *Spiritus Ætheris Nitrosi*, refrigerent, diuretic, ℥ xx. to ʒ i.

EXFOLIATION. See *Bones, diseases of.*

EXOMPHALOS. See *Hernia.*

EXCORIATION. A separation of the cuticle; a soreness merely affecting the surface of the skin. That kind of excoriation occurring in the wrinkles of the neck, groins, &c. of young children, in consequence of neglect in cleanliness, is easily relieved by frequent washing with warm milk and water, and applying some absorbent, as hair powder, prepared carbonate of lime, &c. and applying a piece of scorched rag. Mild saturnine ointments are also useful. Discharges behind the ears of children are not to be dried up without repeated doses of physic, applying a blister, &c.

EXOSTOSIS. See *Bones, diseases of.*

EXPECTORANTS. *Stimulant.* Ammoniacum, assafoetida, guaiacum, elecampane. *Nauseating.* Squills, garlic, tobacco. *Antispasmodic.* Antimony, warm bathing, vapours of warm water medicated with ether; blisters, tobacco-smoke.

EXTRAVASATION. A term applied when fluids escape from their proper vessels or receptacles; see *Wounds.*

EYE, DISEASES OF.

The following sketch of the diseases of the organ of vision and its appendages, is chiefly drawn from the valuable writings of Scarpa, and from "*A Synopsis of the Diseases and treatment of the Eye, by B. Travers, 2d edition. London. 1821.*" I have availed myself of the arrangement of the latter.

I. *Pathology of the Membranes.*

A. The Tunica Conjunctiva. This membrane lines the inner eyelids, from which it is reflected over the anterior surface of the ball of the eye. It is subject to many different forms of disease.

Ophthalmia, or *Inflammation of this Membrane*. This may be *symptomatic*, depending upon other affections of the eye, but it is generally *idiopathic*. It appears in two different forms; 1st, the *acute* or *active inflammatory*, requiring depletion. 2d, the *chronic*, depending upon weakness of the vessels of the part, requiring stimulating applications: it is generally the sequel of the first form. *Ophthalmia* is also seen modified by specific constitutional diseases, as struma, syphilis, &c. There are several species.

1. *The Simple Acute Ophthalmia*. *Symptoms*: Redness of the conjunctiva; uncaseousness; heat; itching; shooting and spasmodic twitching of the eye; a sensation like sand under the palpebra; intolerance of light; effusion of tears; nausea; pyrexia; head-ach; intense pain in the eye, &c. In a state of health it is only the colourless portion of the blood which enters the vessels of the conjunctiva; but as soon as inflammation arises, the red particles are thrown into them in such quantities as quickly to give the whole sclerotic cornea a bright red colour. In the transparent cornea, however, that portion of the conjunctiva passing over it, is so firmly united to it, that the red particles do not enter its vessels; and the only visible evidence we have of inflammation there, is a haziness or dimness of its surface, when it may be considered in a state of congestion. If the inflammation is not, then, speedily reduced, it terminates in effusion, or whiteness, or complete opacity of the cornea, which is termed *nebula*, producing injury to vision. In very severe cases, an œdematous effusion takes place under the turgid vessels of the conjunctiva, by which they are elevated around the circle of the cornea like a ring, giving it a sunken appearance; this is termed *chemosis*, though Mr. Travers reserves it for a different kind of effusion in suppurative ophthalmia, which see.

Causes. Bad state of the digestive organs, worms, suppression of accustomed discharge, debility from other disorders, &c. may be considered as *constitutional causes*; while blows, extraneous bodies getting under the palpebræ, exposure to cold, or to concentrated heat, or light, &c. may be considered as *local causes*.

Treatment. Mild cases, when caused by an extraneous body getting into the eye, or when the affection does not depend on constitutional cause, or the organ has not sustained any injury, may be regarded as the most simple state of ophthalmia, or, as Mr. Travers says, ophthalmia in the generic sense of the term. Such a state is readily cured by a brisk purge and the loss of a few ounces of blood,

by giving the organ repose and employing soothing applications, such as emollient poultices and fomentations, and removing the extraneous body, (if any,) from the eye, which I do easily with a roll of cotton paper, after raising the lid. If the body is forced into the substance of the eye, it requires a couching needle or sharp probe to remove it. But, in severe cases, especially if the cornea begins to look hazy, and still more if lymph be beginning to be effused into it, (*incipient nebula*,) and the sclerotic conjunctiva begins to be elevated, we are speedily to reduce such symptoms by general and local blood-letting, particularly cupping glasses to the temple, or opening the temporal artery; by purging; by adopting the antiphlogistic regimen; by blisters to the temples and behind the ears; by keeping the patient in bed, in a dark room, enjoining absolute rest, and keeping the head elevated; by observing the treatment of inflammation in general. During the *active* stage, emollient and warm applications are to be used. Mr. Travers says, there is nothing better than tepid water; cold and medicated lotions being exclusively reserved for the *chronic* stage: the same may be said of scarifying, or dividing the inflamed and turgid vessels on the conjunctiva. When connected with a bad state of the digestive functions, the resolvent mixture of Scarpa is highly useful. See *Resolvents*. Œdema of the upper lid is much relieved, by making in it small punctures with a lancet, when bloody serum issues. When the disease has thus continued for a few days, it gradually goes off or terminates in

2. *Chronic Ophthalmia*, when we are to suspend all depleting remedies, and to exchange the tepid lotion and poultices for some moderately stimulating applications. This change is known by the subsidence of the acute pain and throbbing; but the red colour of the vessels still remains, because, from debility, they are unable to empty themselves; and, to give them the necessary tone, astringents are indicated, as R. Zinc. Sulph. gr. v. Aq. Rosæ f. 3 iv. M vel. R. Plumb. Acet. gr. viij. or Tinct. Camph. M x. Aqua f. 3 vi. M. used as lotions. The eye is to be anointed with *Janins* and the citrine ointment, diluted, and a few drops of the vinum opii dropped into it. The patient should gradually expose the eyes to light, and take good food, air and exercise. Scarifying or dividing the turgid vessels upon the eye should now be often repeated.

Œdematous Ophthalmia. The œdematous elevation of the conjunctiva is significant of a feeble action, and is by some regarded as erysipelatous. A fulness of the sclerotic conjunctiva with præcordial oppression, nausea, foul

tongue, &c., indicates disorder of the stomach and liver in cutaneous erysipelas, and requires the resolvent mixture.

Atonic Ophthalmia. This assumes a chronic form from the beginning; is without pain, or any sign of inflammation except congestion; it depends on atony of the parts, and requires stimulants, as in *Chronic Ophthalmia*.

Irritable Ophthalmia. Here the depleting and other remedies do not avail, but tend to increase the irritability, and debility ensues. Mr. Travers advises opium, so combined as not to check the natural secretions; viz. with calomel, antimony, &c.

Aphthous or pustular Inflammation. Aphthæ or pustules sometimes form at, or near the verge of the cornea. Sometimes one is seen on each side of the cornea, sometimes they are in detached clusters, and sometimes a zone of them surrounds it. It resembles aphthæ of the mouth, fauces, &c. Pustules on the corneal conjunctiva are most frequent in children, and are situated near its margin, where one or more pustules of the sclerotic portion appear. As in the glans penis and other fine textures, they usually form ulcers.

Inflammation of the follicles with puriform discharge. This is a disease of the palpebra, and the discharge is supplied by the meibomian follicles and caruncula lacrymalis. This is usually called *psorophthalmia*.

Scrophulous ophthalmia, or inflammation modified by Struma. This, where it has not proceeded to any change of structure, is not marked by any prominent local character---the vascularity is inconsiderable. In its simplest form it is almost peculiar to young children, and is attended with the greatest possible intolerance of light, so much so, as to cause distortion of the spine from the habitual depression of the head. This excessive sensibility, Mr. Travers says, is a disorder of function, for it never impairs the faculty of vision, but depends upon a morbid sensibility of the retina, with the secreting surfaces of the primæ viæ and skin; indicated by the foulness of the tongue and dryness of the cuticle. Accordingly, a blister to the nape of the neck removes the intolerance, and the resolvent mixture, calomel and opium, and warm bath, the exciting causes.

But aphthous inflammation, and inflammation of the follicles, (which are generally of the atonic character, and require stimulants,) are often seen in scrophulous subjects. Mr. Travers gives five forms of such combinations, viz. 1. *Strumous inflammation without change of texture, vascularity more or less, intolerance excessive.* 2. *With recent dif-*

fused opacity of the corneal conjunctiva, and vessels raised upon, and overshooting the corneal margin. 3. *With herpetic ulcers of the cornea.* 4. *With pustules.* 5. *With inflammation of the follicles and puriform discharge.* All which are cured by emetics, purges, alteratives, diaphoretics, blisters to the neck, behind the ears, issues and setons, scarifying the lids, using washes of zinc, alum, copper. Tonics in the convalescent stage. If the inflammation should appear active, which is seldom the case, the treatment first must partake of that for acute ophthalmia.

Acute suppurative inflammation of the conjunctiva. The purulent ophthalmia in adults, and the Egyptian ophthalmia, which proved so destructive to the British army of Egypt, are, probably, one and the same disease; as Mr. Travers makes no other distinction than the mild and vehement acute forms. The *mild* form is most frequent in infants, and is the villosity and puriform secretion of the conjunctiva palpebralis, as seen upon eversion of the eyelids, while the membrane upon the globe is simply intermescent, giving it a rounded figure, and moderately vascular. It seldom injures the cornea, but is apt to be followed by the fungous and granulated state of the palpebræ, as in the vehement form. When occurring in infants, it may, from neglect or improper treatment, extend to the globe and often destroy the cornea. The mild is apt to be mistaken for inflammation of the follicles with puriform discharge, called psorophthalmia, but this latter is only an altered secretion of the Meibomian glands, while the former is a *de nova* production of a true suppurative surface by inflammation. *Travers.*

The suppurative ophthalmia is a very dangerous disease to the organ; it is contagious, and, in all probability, epidemic. Mr. Travers says, it is communicable from one person to another, in all cases if applied to the eyes; also from the mother to the foetus at its birth, if she is suffering under leucorrhœa or gonorrhœa; also by applying the matter of gonorrhœa to the eyes. *Ib.*

The *vehement* form is very sudden and violent in its attack, attended with severe darting pains, with a sensation like sand in the eye; the upper lid, in a few hours, is prolonged upon the cheek, owing to the great swelling of the tissue connecting the conjunctiva to the tarsus. "The sclerotic conjunctiva presents the following states; 1st, *effusion*, (œdema,) which is common to other inflammations, and especially the less vigorous. 2d, *effusion of lymph*, (chemosis,) peculiar to this form of inflammation by which it acquires a solid augmentation of bulk, often afterwards producing ectropeon and entropcon. 3d, *Vil-*

losity, or a subsequent prolongation of the extreme vessels in the form of villi, which secrete pus. The strict adhesion of the conjunctiva to the cornea, prevents these changes from taking place upon that membrane. Upon the tarsi, the conjunctiva thus affected becomes preternaturally vascular, thickened, and scabrous, or forms fleshy eminences." There is also severe pyrexia, and shortly a pure discharge of pus ensues.

Treatment. Copious bloodletting, repeated according to the discretion of the surgeon, affords great relief. We are next to purge, exhibit nauseating doses of emetic tartar, apply blisters, and adopt the antiphlogistic regimen; keep the room still, dark, &c. as in common ophthalmia. These measures will soon reduce the symptoms, and change the discharge from being ropy and viscid to a copious thin and gleety matter; the swelling of the eyelids diminishes, and the conjunctiva sinks and becomes pale and flabby; and, if at this period, the pain and febrile irritation being past, and the cornea retains its tone and brightness, all is well, and a careful, but prompt exhibition of tonics, with cool astringent lotions, will prevent it lapsing into the chronic form, which it is very apt to do. But if, after great depletion, the patient seems much exhausted, the cornea shews a lack of lustre, raggedness, or shrunkenness; or a grey patch in its centre, or a line, wholly or partly encircling its base, assuming a like appearance, the part so marked out will be detached by a rapid slough, unless by a successful rally of the patient's powers we can set up the adhesive action so as to preserve *in situ* that which remains transparent. It is of the utmost importance not to mistake the first change which takes place, upon the eye, which is nothing more than the true adhesive nebula, as the sign of gangrene or death, and to resort to the tonic treatment; such a mistake would prove fatal to the eye. Strong washes at the outset are equally improper. The matter secreted possesses no corroding quality. *Ib.*

Secondary diseases of the conjunctiva, or sequelæ of ophthalmia.

1. *Granular conjunctiva.* This state occurs on its tarsal portion, and follows the mild suppurative. Characterized by gleety discharge, irritability to light, drooping of the upper lid, sense of pricking like sand, vascular state of the sclerotic conjunctiva, and sometimes opacities of the cornea. The eye should be everted, and the projecting granules shaved off with a keen lancet or flat scissors. Avoid wounding the contiguous membrane. When the cornea is opaque, and vessels are ramifying over it, a section of the membrane should be made at one line's distance from the

cornea. In each instance it is proper to apply a solution of sulphate of copper gr. ij. to 3j. water, or a few drops of the liq. plumb. acet. for some time. Lunar caustic and blue stone to be applied to the roots of the granulations. See *Cataract*.

2. *Fungous conjunctiva, elongations, excrescences.* These are found filling the palpebral sinuses and preventing the patient from closing his eye, and are to be removed in the same way as the preceding; some of these tumors are of considerable magnitude. Mr. Travers has seen a malignant fungus of the conjunctiva, but believes this membrane and the lachrymal gland, the only parts of the eye which are primarily affected with carcinoma. See *Cancer of the Eye*.

2. *Pannus.* This term is usually employed when two or three pterigia appears upon the same eye with their points approximating towards each other upon the cornea. Mr. Travers applies it to a chronic thickening and opacity of the sclerotic conjunctiva without inflammation, which, by relaxation of the connecting tissue, becomes redundant and forms folds or duplicatures, on one or all sides of the cornea, which encroach on it and impede its motions: it is analogous to elongation of the uvula. This, as well as the elongated valvula semilunaris, and the soft red caruncles sometimes growing from it, are all to be removed with a lancet-shaped knife cutting on both sides, or a pair of scissors. The small ring-ended forceps are here convenient instruments.

4. *Frena or Frenula.* Membranous bands connecting the sclerotic with the palpebral conjunctiva; apt to follow burns, wounds of the membrane from the excision of tumors or otherwise; are analogous to the bands formed between the pleura costalis and pulmonalis, &c. They are to be cautiously divided without wounding the conjunctiva. No bandage should be employed, and, during the day, the patient should not be suffered to keep his eyelids closed. Escharotics are not proper; they induce the formation of other frenæ from the inflammation they excite.

Pterygium. This is a triangular membrane growing from either canthus or sinus palpehralis, but most commonly from behind the caruncula lachrymalis, and grows over the cornea, to the detriment of vision. There are two species, 1, the *membranous*, which is a true nebula of the sclerotic conjunctiva as well as the cornea; when it extends to it, it is semi-transparent, of the shape of an open fan, and can be easily lifted from the globe. The *fleshy*, is of an adipose or sarcomatous growth beneath the sclerotic conjunctiva, of a wedge-like figure. This last is sometimes chronic and stationary, and threatens no injury to vision, when it should not be molested; but when it is

approaching the cornea, or is already upon it, it should be raised, by dissecting as close as possible to the margin of the cornea, and the relaxed portion of the membrane removed by an incision midway between the pterygium and the cornea, and concentric to that membrane. The excision should not be carried to the caruncula, as a deposit of lymph is apt to be made, forming a cicatrix near it, which may afterwards prevent the abduction of the eye. The application of the caustic pencil may be proper to prevent a farther growth, but a diffused application of escharotics is improper. The *membranous* pterygium is removed by nipping up a concentric portion of it as nearly as convenient to the cornea, and excising it with a pair of curved scissors. The extremities of the line of excision, should, in both species, extend beyond the diseased part. Some recommend removing a portion of the conjunctiva, one line in breadth.

Encanthis. This is described by Scarpa and others as a small, soft, livid excrescence, growing from the caruncula lachrymalis; as it becomes large, it divides into two elongations, like a swallow's tail, one extending along the inner edge of the upper eyelid, and the other along the lower. But Mr. Travers describes it as a morbid enlargement of the caruncula itself in the form of a granular tumor, involving the *valvula semilunaris*, and presents appendices corresponding to the cornua of this fold. Sometimes the short down growing upon the caruncula, takes a morbid growth and harshness. The disease is very irritating, and causes epiphora by a forcible diversion of the lachrymal puncta from each other, and from the surface of the globe. The *treatment* is simple excision. The malignant species of pterygium and encanthis, mentioned by authors, was never observed by Mr. Travers.

Coadhesion or concretion of the tarsi. Organized adhesion of the conjunctiva tarsorum, occasionally happens; it is analogous to the cohesion of the nymphæ, &c. and probably is to be remedied with a small director and bistoury upon the same principles.

Tumors upon the globe unconnected with the palpebræ should be dissected out, particularly if seated near the cornea; after the operation, to prevent adhesion of the sclerotic and palpebral surfaces, the lower lid should be partly everted by a strip of plaster carried from its edge obliquely across the cheek, until healed.

All those operations require that we should bleed, purge, enjoin rest and the antiphlogistic regimen, should inflammation follow them.

Diseases of the Cornea.

The structure of the cornea consists of a concentric cellular lamellæ, covered, externally, by a contumation of the conjunctiva, and lined internally by a serous membrane---the tunica humoris aquei. It is disposed to adhesive inflammation, ulceration, and sloughing, but rarely suppurates. Inflammation of the cornea must be understood to be applied to its compound textures, and not to its lamellæ or horny substance which has no vessels proper to itself, but derives them from the covering and connecting cellular tissue. The adhesive and ulcerative processes are frequently conducted without any appearance of coloured vessels.

Ulcers of the cornea. These arise from ulceration following ophthalmic inflammation, abscess, puncturing the cornea for abscess or hypopion, from external violence as wounds, irritation of lime, bits of glass, &c. It is excessively sensitive and painful, of an ashy colour, its edges high and irregular, has a tendency to spread, and discharges a serous matter. It sometimes makes its way entirely through the substance of the cornea to the anterior chamber, when the aqueous humour is discharged, followed by prolapsus of the iris, and sometimes the whole interior of the eye. Although it for the most part depends on acute ophthalmia, and requires the most vigorous treatment to arrest it, yet ultimately the ophthalmia may depend on the ulcer, particularly when caused by external violence. But from whatsoever cause arising, the most signal relief is always obtained by the application of the argentum nitratum. This relief is caused by the destruction of the irritable surface of the ulcer by which an eschar forms over it and shields it from the irritation of the neighbouring surfaces. In a day or two the eschar will be thrown off, when the pain and irritation returns, demanding a reapplication of the caustic. This process is to be continued until the ulcer loses its ashy colour and assumes a pink hue, when astringent washes will suffice. Opium to allay irritation may be proper. Scarpa says that when an ulcer has been wrongly treated, it assumes the form of a fungous excrescence, which seems to derive its support from a plexus of blood vessels in the conjunctiva. This requires vigorous treatment to prevent loss of sight. The fungus is to be cut away smoothly with the cornea, with a pair of scissors, together with the entire plexus on the conjunctiva and caustic applied to the surface after it has freely bled.

Mr. Travers enumerates three kinds of ulcers. 1. The superficial external. 2. Indolent and deep seated sloughy. 3. Acute interstitial. They all require a similar treatment varying the constitutional remedies as may appear necessary.

Onyx and Unguis. These terms have usually been applied, indiscriminately, to extensive collections of lymph and pus between the layers of the cornea, and into the anterior chamber; but Mr. Travers says they are only applicable to the crescentic interlamellar depositions seen in acute interstitial ulcer, in bad habits, and where violence has been done the cornea. In such cases, a large quantity of pus is often secreted, and if it occupies a large central portion of the cornea, it usually terminates in an entire slough of it. If onyx of adhesive matter, or nebula be present, it requires bleeding, purging, and all the remedies for reducing inflammation.

Abscess, or a large collection of matter in the cornea, whether the puriform onyx or central abscess, requires, at the same time, a supporting constitutional treatment, mild cathartics and blisters. Calomel should in most instances be avoided, when ulceration is present. The puncture of the cornea is seldom practised with advantage. By the above means I have seen large effusions absorbed and no trace left of their existence. *Travers.*

Hypopion. When the interstitial ulcer opens into the anterior chamber, lymph and pus is secreted into it of a yellowish colour. It begins at the bottom, in the form of a yellowish streak, which gradually extends upwards until the whole iris is obscured. It increases while the violence of the ophthalmia lasts, and when that diminishes the hypopion decreases by absorption. This requires the vigorous application of the remedies for acute ophthalmia, as its extent and duration depends thereon. Though evacuating the matter by puncture is generally prohibited, as increasing the severity of the ophthalmia, yet Scarpa and Travers admit, if the hypopion is very large and still extending, a small puncture to be made near its margin, to prevent its farther extension.

Procidencia iridis. Prolapsus of the iris either occurs from a wound or ulcer penetrating the anterior chamber through the cornea, through which the aqueous humour has escaped. The iris protrudes a portion of its substance through this aperture and appears externally. From its extreme sensibility, and from the constriction it suffers, the most violent symptoms of ophthalmia are produced. In old cases, however, its sensibility lessens. When the prolapsus is large, it is apt to take on the adhesive pro-

cess at once, by its pressure upon the margin of the aperture in the cornea, though the adhesion most readily follows prolapsus from wounds. The healing process is marked by a dusky white line at the verge of the opening. The contraction of the chamber, and disfiguration of the pupil are proportioned to the extent of the prolapsus, the site of the ulcer, and the relation of the prolapsed portion of the iris to the pupil. Some reduce it with a probe.

If the prolapsus is small, it should be touched with the caustic pencil; if large and extensive, it should be snipped off with a pair of curved scissors, and the caustic immediately applied to the cut surface and margin of the ulcer. The same treatment is applicable to prolapsus occurring after the operation of extraction. Leeches, sedatives, mild purges, nutritious diet are proper.

Opacities of the Cornea. These are of three kinds;---1. *Nebulous*, which depends upon a loss of transparency from recent inflammation; 2. From recent interstitial deposition without breach of texture; 3. *Cicatrices*, formed where there has been an absolute loss of substance: the two latter are called *albugo* and *leucoma*. The 1st, in which the iris and pupil can be seen through a kind of dimness, and in which the patient is not entirely bereft of vision, is generally removable. The 2d is also removable, unless the entire texture of the cornea is actually changed. 3d is only removable so far as the surrounding deposit is of the 2d kind. The two last, when recent, are of a white colour, afterwards becoming yellow or brown, when they are far less curable. If acute inflammation be present, it should be reduced; afterwards apply stimulants, and divide the trunks of, or remove the fasciculus of turgid vessels which are always present with a pair of scissors at the base of the opacity. Mr. Travers uses the lunar caustic or oxymuriate of mercury gr. i. or ij to f 3j of water after the inflammation, but thinks lightly of dividing or removing the vessels. Ptyalism, in strumous nebula he generally resorts to.

Staphyloma. In this case, in consequence of violent ophthalmia, small pox, &c. the cornea loses its natural transparency, rises above its proper level, and projects between the lids in the form of a whitish, pearl-coloured tumor, destroying vision. The inability to close the lids, exposure of the tumor to the air and extraneous bodies, &c. produces the most distressing symptoms. Mr. Travers describes two kinds, the *spheroidal* from dilatation, and the *conoidal* from breach of the cornea. The 1st is a mere bulging of the cornea weakened by ulceration; the 2d is a yielding, at one or more points on the surface of the cor-

nea where recent lymph has been deposited over a breach ; the two are now and then combined.

Treatment. When it does not project beyond the lids and causes but little trouble, it should not be molested ; but when otherwise, it is to be removed by passing a needle and ligature through it, when we are to pass a flat double edged knife through the tumor bringing it out at its bottom ; its upper part is then to be detached with the same knife or pair of scissors. If it be from dilatation the iris will be left, if from breach, removed. This circumstance makes no material difference in the healing, unless the section be made much posterior to the ciliary ring, when the globe collapses from the escape of the vitreous humour, which is not the case when the section is at the base of the cornea. This saves in some degree the form of the eye.

Conical Cornea. The cornea sometimes undergoes a process of thinning, or absorption in its interlamellar texture, by which it loses its power of resistance, and the contents of the globe press it forward, generally in the form of a cone. It is not, as in staphyloma, preceded by or attended with inflammation. It sometimes comes on in a few weeks, at others it occupies years. It is most frequent in middle life. It is relieved by blisters, powerful tonics, as steel, arsenic, &c. and opening the eyes in cold spring water. Evacuating the aqueous humor is useless. *Travers.*

Diseases of the Tunica Sclerotica.

“ When the sclerotic partakes of the inflammation of the conjunctiva, for it is only as intermediate to the conjunctiva and the other tunics that it is usually affected, the vessels which pursue a straight course to the margin of the cornea are strongly distinguished. They have a somewhat brighter hue than the areolar vessels upon the loose portion of the conjunctiva.” *Travers.* From the peculiar texture, situation, and slight vascularity of this tunic, it operates as a barrier, and prevents, in some degree, the common superficial inflammations from invading the deeper tunics.

Scleritis. “ I have observed in a recent ophthalmia this turgescence of the straight vessels, unaccompanied by any affection of the cornea or iris, and with so slight a vascularity of the loose conjunctiva, as to give reason to consider it a primary scleritis. The inflammation is more obstinate than acute ; the motions of the ball are painful. By continuance the cornea becomes nebulous,

and the surface roughened, from effusion beneath the conjunctiva." *Travers.*

Rheumatic ophthalmia. "The inflammation of the sclerotic sometimes accompanies, and is sometimes vicarious with rheumatism. This is not surprising, as it is of a similar texture with the ligaments of the joints. This species presents the zonular arrangement of the vessels, more or less cloudiness of the aqueous humour, and the pupil displaced or drawn a little to one side. It is often seen in company with, or following gonorrhea, eruptions, or sore throat of a pseudo-syphilitic character; and the pains to which it is generally allied, are those which succeed to the use of mercury." *Travers.*

Treatment. The obtuse pain in the eye ball is much relieved by bleeding, leeches, sudorifics, and cleansing the primæ viæ. When connected with syphilis, &c. a cautious course of mercury with nitric acid, decoction of sarsaparilla, plummers pill, &c.

Mr. Travers speaks of staphyloma of the sclerotic and chroid.

The Choroid and Iris.

Choroiditis, or inflammation of the choroid. There can be but little doubt, that the iris and choroid are seldom inflamed, one, without the participation of the other. But as we cannot see the choroid, we may infer, that when symptoms of deep seated inflammation occur, such as the appearance of a zone of vessels at the margin of the cornea, (which, taken by itself is a sign that inflammation has extended to the sclerotic) dullness of the humors, a spastic contraction, a sluggish and limited motion of the pupil, impatience of light, dimness of vision, prior to any visible changes in the iris that choroiditis is existing.

Iritis, or inflammation of the iris. "The indications above are farther confirmed by the presence of habitual aching pain in the globe of the eye, forehead, orbit, and appearance of inflammation in the iris, as hair-like red vessels and specks of extravasated blood in its substance. Adhesive inflammation takes place between the fibres of this muscle; the pupil loses its thin flowing edge, and becomes thick, stunted, and gibbous." Iritis of moderate acuteness is often without any other appearance of inflammation; there is no distinct deposit of lymph visible. Mr. T. thinks it is deposited on its posterior surface. In this form, the pain is often severely augmented in the evening or early in the morning. The pain is sometimes pulsatory. A sense of constriction from distention of the

vessels is always present. In the *vehement acute iritis* lymph is deposited upon the iris in small tufts or larger tubercular masses, rendering the pupil angular and misshapen, or even obliterated; vision nearly lost. *Travers.*

“*A primary inflammation of the iris* as from syphilis or from mercury, is distinguished from the *secondary*, or that by extension from the conjunctiva, by the more sparing vascularity of the conjunctiva, and consequently more distinct and conspicuous appearance of the vascular zone. The attack is more sudden, the pain in the region of the orbit and head begins with the inflammation, and is more severe; the vision more quickly bedimmed. The effusion of lymph is *en masse* and the disfiguration of the pupil greater.” *Travers.*

“*Secondary.* In iritis from continuity, the conjunctival vascularity is more conspicuous and diffused, and the cornea is so much clouded as to obscure the view of the iris; the albuminous deposit is wanting, or is small in quantity, white, flocculent, and diffused in the aqueous humor, or is deposited at the ciliary margin of the iris, forming a lymphatic hypopion; the pupil is little if at all misshapen; the pain is inconsiderable and usually confined to the ball. Although vision is much bedimmed, there is greater susceptibility of light. This state I have heard others describe as the adhesive inflammation of the anterior chamber.”

“The terminations of iritis if unsubdued, are 1st, constricted or closed pupil, with opaque capsule; 2d, cohesion of the iris and cornea, partial or entire, the former assuming the convexity of the latter; 3d, organic amaurosis, followed by disfiguration of the globe and often by protrusion of the choroid and sclerotic.” *Ib.*

Mercurial Iritis. Iritis is frequently in company with, or succeeds to syphilis, or the symptoms called mercurial, as eruptions, sore throat, &c. Primary iritis is rarely without such symptoms and generally yields to mercury.

The iris from inflammation is apt to lose its colour and transparency, and its texture is so altered by the agglutination of its fibres as to deprive it of its mobility.

Treatment. This has usually been copious bleeding, purging, &c. but within a few years it has been discovered at the London-Eye-Infirmary that mercury is almost a specific for it. Mr. Travers says that one full bleeding may be premised in the acute stage and topical blood-lettings at intervals during the exhibition of mercury. He farther says that in the beginning of cases where the inflammation had extended from the conjunctiva, copious venesection and brisk purges removed it, but generally

speaking, the system must be made to feel the influence of mercury. Even where the disease seems to be induced by it, it is again to be resorted to in smaller doses and more cautiously exhibited. He considers mercury equally useful in carditis, peritonitis, and other membranous surfaces, to reduce inflammation and promote absorption of effused adhesive matter. It may be exhibited in the form of the blue pill or calomel, and in urgent cases by friction. *See his paper on Iritis in Surgical Essays, part 1st.*

Diseases of the Retina.

Inflammation. Symptoms. "A sudden attack of vehement dashing pain of the most distracting kind, extending from the bottom of the eye ball to the occiput, or in the reverse direction, total blindness supervening in a few hours, with occasional sparks and flashes of vivid light. The pupil is gaping and motionless, as in confirmed amaurosis, and the humours are thick and muddy. The external signs of inflammation are, in the onset, disproportionate and insufficient to account for the symptoms. Intolerance of light is not a sign of this affection, for the retina is very shortly rendered completely paralytic." *Travers.*

In some cases the signs of the choroid inflammation are present. The pupil is not thrown open but it is without motion. In addition to the diffused vascularity of the conjunctiva, the straight ciliary vessels are much loaded, so as to give a livid hue to the sclerotic around the cornea. The pupil becomes in a few days plugged with lymph, or the whole iris bulges forwards, changes colour, and the crystalline turns opaque; or instead of this, the same splendid tapetum-like appearance presents itself, which is observed in the commencement of the medullary fungus upon, looking obliquely through the pupil. With the pain is a sense of confusion, so great as to threaten the loss of the intellect. When the internal signs of inflammation are less obvious, and the humors and internal tunics undergo a slow but complete disorganization in the progress of the disease, meteoric flashes are frequent, even after the inflammation has run its course." *Travers.* Bleeding and mercury Mr. T. has tried with very little success. These, however, with blisters, the antiphlogistic regimen, &c. are our only remedies.

Amaurosis, formerly called *Gutta serena*. "Amaurosis comprehends all those imperfections of vision which depend upon a morbid condition, whether affecting structure or function, of the sentient apparatus proper to the organ." *Travers.* Amaurotic affections being so very numerous, and differing so much in degree as well as in kind,

that Mr. Travers has divided them into two classes, viz. 1st, *organic*, 2d, *functional*. "The 1st. comprehends alterations, however induced, in the texture or position of the retina, optic nerve or thalamus. The 2d. includes suspension or loss of function of the retina, and optic organ, depending upon a change either in the action of the vessels, or in the tone of the sentient apparatus. *Causes of the first class.* 1. Læsion, extravasation of blood, inflammatory deposition upon either of its surfaces, and loss of transparency of the retina. 2. Morbid growths within the eye ball, dropsy, atrophy, and all such disorganizations as directly oppress or derange the texture of the retina. 3. The state of apoplexy, hydrocephalus, tumors or abscesses in the brain, in or upon the optic nerve or its sheath, and thickening, extenuation and absorption, or ossification of the latter. *Causes of the 2d class.* 1. Temporary determination; vascular congestion, or vacuity, as from visceral and cerebral irritation; suppressed or deranged, or excessive secretions, as of the liver, kidneys, uterus, mammæ, and testes; various forms of injury and disease; and sudden translations of remote morbid actions. 2. Paralysis idiopathica, suspension or exhaustion of sensorial power from various constitutional and local causes; from undue excitement or exertion of the visual faculty; and from the deleterious action of poisons on the nervous system, as lead, mercury, &c. The 2d class or functional is subdivided into 1st. *The symptomatic*, or that which is only a symptom of some general disorder of the system, as general plethora, general debility, &c. 2d. *The metastatic*, or that produced by the sudden transference of the morbid action from an other organ of the body; as from the skin, the testicle, &c. 3d. *The proper*, or that which immediately depends upon a peculiar condition of the retina, as the visus nebulosus, muscæ volitantes, &c."

Organic amaurosis from inflammation. Many diseases of other parts of the eye, which are often present in organic amaurosis, are the effects of an inflammation which has destroyed the retina;---as "discolouration and absorption of the vitreous humour, or a bright yellow opacity of the crystalline lens, which is indurated---its capsule condensed with it, and firmly adhering to the constricted and perhaps irregular pupil, with peduncles of lymph, or detached flakes of the black pigment projecting from its posterior border---or a capsule containing calcareous concretions with an absorbed lens, and a concave or tremulous iris, or an obliterated pupil, or a staphyloma of the sclerotic or choroid."

“*Functional Amaurosis.* When the eye ball has the appearance of health, and the loss of vivacity in the motions of the pupil, is the only sign of an amaurosis obtained from an inspection of the organ, we are scarcely warranted to suppose any disease of structure.” *Ib.*

The *symptomatic functional*, includes a class of diseases, which to consider in detail would occupy a volume. The amaurosis therefore being subservient to the disease which affects the system at large, or some one important organ, the latter is the proper object of medical treatment. For example, the morbid states and actions of the vascular system; the disordered state of the digestive organs, arteries, or secretions; local irritation, from wounds, as abscesses, caries, worms, &c.; strong mental emotion, producing morbid irritability. Though our prognosis will depend upon the degree, rather than the nature and origin of the functional disease, yet more or less encouragement is to be derived from the curable, or incurable nature of the primary affection.---Thus when arising from gastric affections, plethora, irritation, inanition, &c. a cure may be expected; but when arising from paralysis, the sequel of fever or epilepsy, severe constitutional disease, acute or chronic, cerebral congestions, operation of noxious agents, &c. it is less curable. It resembles the ordinary gutta serena, or idiopathic palsy of the retina, which appears at all periods of life, and exhibits no defects but the gaping and motionless pupil, and lack of physiognomical expression: with these exceptions the eye is often remarkable for its brilliancy.

“*Metastatic Amaurosis.* This is rare but well defined. The restoration of the original malady, if it be practicable without involving the patient's safety, or the substitution of an artificial excitement or discharge, which may serve as an equivalent, appears to be the natural indication, and such a practice has been attended with success. But the prognosis is uncertain.” *Travers.*

The 3d or *proper functional* amaurosis, presents great variety, but if treated early is often cured. The extremes of light and heat, vivid colours, over exertion of the organ, are its chief causes, the cure of which depends upon their removal.

Functional amaurosis varies in its rate, progress, and extent; some are sudden, others slow and steadily progressive, though these last are more incurable than rapid cases, provided there is no organic defect.

The *muscæ volitantes*, or imaginary floating particles before the eyes, *nyctalopia* and *hemeralopia* night and

day blindness, myopia, &c. &c. are only different forms of amaurosis. It is sometimes periodical.

Treatment. The local applications of ether, vapors, ointments, &c., Mr. Travers places little confidence in, except in cases where a disordered state of the conjunctiva is coupled with it. Cupping, however, together with issues, setons and blisters are very useful and form an exception; the blisters should be applied alternately over the superciliary ridge, temple, mastoid process, and nape of the neck; the issues and setons may be applied to the nape of the neck, or upon the arm. Mr. T. has never seen a single case benefitted by electricity or galvanism, or the use of antispasmodics. General bleeding is useful in cases of general plethora and cerebral compression. But in cases where there is an undue determination of blood to the organ, occurring often after deep-seated chronic inflammation, or distress from over excitement by which the vessels have lost their tone, depletion is injurious. In cases where real debility does exist, tonics are very useful, particularly bark, mineral acids, steel, &c. The emetic practice of Scarpa (*See Resolvents.*) Mr. T. finds but little benefit from; but in cases of gastric disorder, he advises the blue pill, with saline purges, and tonics. Mercury he advises to be introduced into the system with all convenient speed, when the amaurosis is recent or sudden, or rapidly progressive from bad to worse. Its efficacy is perceived as soon as the mouth is sore; salivation not advisable. In addition to these means, repose of the organ, pure dry air, cold bath, horse exercise, nutritious diet, avoiding all exciting causes, rest, agreeable society, tranquillity of mind, keeping the bowels free, &c. &c.

Pathology of the Humours.

Of the Aqueous Humour. *Hydrophthalmia or Dropsy of the Eye.* This is a redundancy of the aqueous humour, and is the "sequel of chronic inflammation of the interior of the globe. Its figure is preserved, but the distended sclerotic has a blue tinge; the cornea is extended and prominent, the pupil dilated and inactive, and vision inconsiderable, if not extinct. In other instances the state of hydrophthalmia is accompanied with loss of figure of the globe, and staphylomatous enlargement of the cornea, which is specked or exulcerated, and frequently presents fasciculi of red vessels on its surface. This state is the result of a disorganizing inflammation." *Travers.* I do not see any plan of treatment laid down in this author's work. The disease goes on until the eye is protruded be-

yond the eye lids, when much pain, irritation, and ophthalmia is produced. Evacuating the fluid by puncture is useless, for it immediately reaccumulates, even in twelve hours. The best method is to cut out a a portion of the centre of the cornea, about the size of a pea and then press out as much of the humour as will allow the lids to close over the eye. A pledgit of lint and a bandage is all that is required, taking the usual means to avert inflammation. Mr. Ford has proposed the introduction of a seton through the eye.

The aqueous humour is always rendered turbid by inflammation of the choroid and iris; effusions of lymph and pus into it is common, also extravasation of blood after blows, &c. All which are soon removed, as the absorption and secretion is always rapidly going on. Mr. Travers denies its supposed solvent power, and attributes the removal of cataract, when carried into the anterior chamber, to the action of the absorbents alone.

Of the Vitreous Humour.

“The absorption of the vitreous humour is evident in cases of floating cataract, and in some forms of organic amaurosis, marked by preternatural flaccidity, even without a diminution of volume; also in cases of absorbed crystalline and membranous cataract, with adhesions of the iris.” *Travers.*

“*The tremulous iris* is I believe, always connected with a relative disproportion in volume of the vitreous humour, whether congenital or the result of operations or injuries. Coucuing, if roughly performed will break down a portion of the vitreous cells which become obliterated; hence the frequency of floating cataract and tremulous iris after such operations. The loss of a considerable portion of the vitreous humour does not always permanently impair vision except in minute objects.” *Travers.*

The humour is sometimes discoloured. Hemorrhage has also taken place into its cells a few hours after extraction of a cataract; the coagulum was visible to patient and surgeon; it gradually absorbed. Active constitutional hemorrhage has followed the operation, so great as to distend the ball, and the next day a coagulum protruded at the section made by the operation. Other cases of hemorrhage are mentioned by Mr. T. following blows, which soon caused a sloughing of the cornea, and protrusion of the coagulum, attended with severe pain in the temple, and above the orbit, which was relieved by opium. The ball ultimately sunk, with a total loss of

figure. Such cases have been mistaken for malignant fungus.

Change of substance of the vitreous, and Fungus Hemetodes. The vitreous may be converted into an opaque substance resembling curd, or like ground rice, but is not malignant. These affections are liable to be mistaken for each other in the outset, for they not only both occur in childhood, but in the beginning are attended with the same appearances, viz. a bright coloured appearance, as long as the crystalline remains transparent, at the bottom of the eye; the lens soon becomes opaque, and is protruded so as forcibly to dilate the pupil, this becomes fixed, its edge roughened by detached pigment, and the iris convex, so as to give a conoidal figure to the globe. This peculiar brilliant tint, which has been considered a sign of fungus, Mr. Travers says, depends upon an opaque reflecting surface at the fundus of the globe, and is produced equally by an opaque retina, or morbid growth, except that in the latter it is more lustrous, from its greater density and projection; the convexity of the iris, the immobility of the pupil, and the apparent opacity of the crystalline, are secondary signs and common to both. There are, however, two marks of distinction sufficiently strong, viz. the progressive, or stationary condition of the disease, denoted by the state of the tunics and the eye ball generally, and secondly, the presence, or absence of pain and constitutional irritation. Both eyes being affected denotes malignancy, the reverse if only one; the malignant requires extirpation, (*See Fungus Hemetodes,*) the other does not, and may remain stationary many years, though it may in some cases, ultimately assume the malignant character,

Of the Crystalline Humour.

Cataract. This disease, for the most part, is very gradual in forming, even years, though sometimes it comes very suddenly, and in a very high degree. The first effect is an incipient opacity, or mist before the eyes, surrounding every object, and afterwards gradually encreasing so much in density, as to render things quite invisible. As the lens is thick at its centre, and thin at its edge, the incipient opacity when viewed externally, always seems the greatest in the middle of the pupil; while the circumference of the lens, appears like a black ring surrounding the white nucleus of the crystalline. Some rays of light are capable of penetrating the thin margin of the lens in its most opaque state; and hence, patients with cataracts, are almost always able to distinguish light from darkness,

and can discern objects when looking at one side, and when the pupil is dilated by being in a moderate light.

The different kinds of cataract are, 1st. *firm* or *hard cataract*, which is commonly of an ash-colour, yellow, or brown; the motions of the pupil are free, the anterior part of the cataract is flat, and the patient is not entirely bereft of vision. 2d. *milky* or *fluid cataract*. This is usually white and the substance of the lens is converted into a whitish fluid, lodged in its capsule. They are apt to change their figure and situation upon sudden motions of the eye, or when the eye is rubbed or pressed; its lower half is most opaque; the pupil is dilated and impeded in its motions by the increased size of the lens: the patient in consequence has very little vision. 3d. *soft* or *caseous cataract*. Here the lens is of the consistence of curds, or thick jelly; it grows to a greater size and more completely obstructs vision than the preceding. 4th. *secondary* or *membraneous cataract*. This is an opacity of the anterior, or posterior layer of the crystalline capsule, taking place after the lens has been removed by an operation. All cataracts may be complicated with ophthalmia, lippitudo, amaurosis, adhesions of the lens to the iris, &c. Persons exposed to strong fires, as glassmen and others, are said to be most liable to cataract; but it commonly arises spontaneously. They are often congenital. No internal or external medicines have any power over cataract. Mr. Ware, however, occasionally applied a few drops of ether or rubbed the eye with liniments. The cure depends upon some manual operation, and the cases most likely to be benefited by it, are, those which are not complicated with any other organic defect, or with amaurosis. Those cases then, which come on slowly, where the sight is not entirely lost, or where the pupil still varies its dimensions, are considered favourable to operate on, and it should always be performed, for no ill ever results from it, or but very rarely. The object is to remove the opaque body from the axis of vision. There are three operations for effecting it; 1st. *Couching* or *depression*. 2d. *Extraction*. 3d. *Absorption*.

Of Couching or depression. Authors differ as to the superiority of couching, or extraction, the former is not much practised in England now. Mr. Travers says it is only applicable in cases which offer impediments to extraction, as a closed state of the pupil, &c. Couching is performed with a needle, Mr. T. prefers Scarpa's. The operation is performed by passing the needle into the eye, through the sclerotica, a line or two posterior to the edge of the cornea, and depressing the lens deep into the vitreous hu-

mour. Should the lens afterwards ascend and again get into the axis of vision, the operation must be repeated. This operation is sometimes performed through the cornea.

Absorption, consists, in making, with a needle as before, a free laceration of the anterior capsule, and leaving the cataract there to be absorbed. This operation it is often necessary to repeat several times. It is principally performed on children. It was in this that Mr. Saunders so greatly distinguished himself.

Of Extraction. This is by many considered the most eligible operation, but it is one of much difficulty. It consists in making a section through the cornea with a knife, then opening the capsule and pressing out the lens or extracting it with a pair of forceps.

Sir Wm. Adams passes a knife of a peculiar construction into the eye, and with it cuts into pieces the lens and its capsule, and brings them into the anterior chamber for absorption. I omitted to state when speaking of ophthalmia, that, Sir William, instead of using the nauseating plan, gives very powerful emetics in the early stage of that disease with great success: it seems to change the nature of the diseased action going on in the conjunctiva. He also shaves away the granules, in the granular conjunctiva more extensively than others, and objects to the use of caustic solutions in the same cases, as recommended by Mr. Saunders.

For the particulars of cataract operations and farther information, consult *Weuzel, Scarpa, Hey, Saunders, on the Eye. Adams on Cataract, Travers in Med. Chirurg. Trans. vol. 4th & 5th. S. Cooper's Surg. Dict.*

Artificial Pupil.

The formation of an artificial pupil is necessary, when the natural aperture is become nearly closed, in consequence of severe inflammation of the iris, cataract operations, &c. It may be also necessary when there is a dense opacity in the centre of the cornea. It is often complicated with cataract. If the retina is supposed to be sound, the operation should be performed. Cheselden was the first to operate for this malady. He introduced a coughing needle, sharp upon one edge only, through the sclerotic, a line and half from the cornea, carried it to the iris, and made a transverse section of it on its temporal side. This operation has lately been successfully revised by Sir Wm. Adams. Scarpa makes an artificial pupil, by detaching a certain extent of the circumference of the iris from the ciliary ligament, next the nose. Mr. Gibson recommends making a puncture in the cornea with a broad

cornea knife, within a line of the sclerotica. Upon withdrawing the knife a portion of the aqueous humour escapes, and the iris falls into the opening and closes it like a valve. A slight pressure is now to be made, until the iris protrudes of the size of a large pin's head, which is to be cut off with a pair of curved scissors. The iris will then recede, and the piece which has been removed, leaves an aperture more or less circular. The closed pupil appears under a great variety of states and combinations. See *Mr. Travers' Work. Messrs. Gibson and Guthrie's Tracts. A Paper by Professor Maunoir in Med. Chirurg. Trans. vol. 7th. Sir Wm. Adams on Diseases of Eyes, &c.*

Pathology of the Appendages.

Of the Orbital Appendages. Common abscesses, adipose, encysted, sarcomatous, hydatid, and cartilaginous tumors sometimes occur in the orbit, causing pain, protrusion of the globe, eversion of the palpebræ, more or less suspension of vision. They require to be dissected out. An aneurisimal tumor in the orbit, was cured by Mr. Travers by tying the carotid artery. See *Med. Chirurg. Trans. vol. 2d.* Polypi in the frontal, sphenoid, and ethmoid sinusses, in their progress, burst through the ethmoid and lachrymal bones, extrude the eyes and cause horrible deformity. The *lachrymal gland*, as other glands of a like structure, is subject to enlargement, suppuration, and scirrhus. When matter forms in it, it is to be evacuated; and the gland, when scirrhus, should be extirpated. All these operations should, if possible, be performed beneath the eyelid.

Of the Facial Appendages.

Hordeolum, or Sty. This is painful inflammatory swelling upon the edge of either lid, caused by an obstruction of the meibomian follicles, or an abscess around the bulbs of the eye-lashes, or it may be a simple boil or furuncular inflammation. If large and painful, they should be opened and poulticed, or bathed with alum washes. Frictions will sometimes remove them. If the cilia fall off, and the edges of the lids look red and diseased, ointments of nitrated mercury, or of red, or white precipitate should be applied night and morning. They are indicative of scrophula, or gastric disorder, and hence the advantage of emetics, purges, tonics, and good air.

Lippitudo. The first stage is a simple excoriation; the second, an ulceration of the borders of the palpebræ. It is the result of inflammation of the palpebral conjunctiva, aggravated by an unhealthy meibomian secretion. In the

chronic form in strumous subjects, the conjunctiva is thickened, indurated and altered in its texture. Ectropeon may result from it. The acute form, generally yields to lead and zinc ointments; as R. Zinc. Oxid. \mathfrak{z} i. Ung. Simp. \mathfrak{z} i. M.

In irritable cases, a few drops of aq. acet. plumb. or opiated ointments are useful. But sometimes all unctuous applications disagree, when, hot water, at a temperature above what the hand can endure gives certain relief. The chronic form is obstinate, and often attended with intolerance, the palpebral conjunctiva is thickened, and its vessels are turgid, the cilia are partially destroyed, the follicles are plugged up. The conjunctiva should be occasionally scarified, and the meibomian borders stimulated with the above applications. In obstinate cases, solutions of sulphate of copper, caustic, &c. applied with a brush of a sufficient strength to cause some minutes smarting are efficacious.

Tinea ciliaris. This is of a similar nature and requires the same treatment as Lippitudo. The lids are adherent in the morning, should be moistened with ointment, and then carefully washed. Cleanliness of the parts very necessary.

Trachiasis or Entropeon. Trachiasis is a morbid incurvation, or wrong growth of the cilia, by which they are directed in upon the eye, causing much pain and irritation, chronic ophthalmia, &c. The Entropeon exists when the same effect is produced by the incurvation of the margin of the lid.

Causes. The cicatrization consequent upon wounds, burns, lippitudinous ulcers, &c. In Trachiasis we are to pluck out the incurvated cilia. Should this fail, the follicles may be destroyed with caustic, or the edge of the palpebra may be entirely removed. In Entropeon, Scarpa's plan is to remove a transverse fold of the loose integuments upon the affected lid, with a pair of scissors, and the cicatrix formed in healing tends to draw the incurvated edge to its proper place.

Ectropeon. In this case the lower lid, generally, becomes turned out towards the cheek and does not apply itself to the globe of the eye. This exposure of the lining of the eye, causes defluxion of tears, chronic ophthalmia, &c. It is caused by wounds, burns, lippitudo, and chemosis. (See page 134.)

Treatment. When caused by redundant and thickened conjunctiva, that portion of it must be excised. The removal of a triangular portion of the tarsal border is often efficacious by its contraction in cicatrizing. Adhesion of

the everted lid to the cheek, should be detached, and the lid held up with adhesive plaster until the part is healed.

Tumors of the Palpebra. These are like tumors in other parts, and require to be extirpated, when loose under the integument, but if adhering to the tarsus, the lid must be everted, when it will be seen making its way through. An incision is then to be made through the tarsus, and if the whole sac and its contents cannot be pressed out, the application of the caustic pencil will be proper.

Lagophthalmus or Hare-Eye. In this case the lids do not close over the ball, either from staphyloma, or hydrophthalmia. It may also occur from burns, &c. requiring the same treatment as the preceding cases; also from drooping of the upper lid, when a fold of integument should be removed.

Obstruction of the Lachrymal Passages.

Fistula Lachrymalis. This disease depends upon a stricture, or a total obliteration of the ductus ad nasam, which prevents the tears from passing down into the nose; the tears accordingly accumulate in and distend the lachrymal sac, situated just beneath the inner angle of the eye; the eye, in consequence, is constantly weeping, and the tears flowing down over the cheek. If the distended sac be pressed upon, tears and mucous regurgitate through the puncta lachrymalia. In the state of simple weeping it will remain many years, giving but little trouble; but sooner or later the sac goes on to suppuration, the matter bursting through it upon the face, through which the tears also issue, making it a fistulous opening.

Treatment. The indication is to open the stricture, so as to allow the tears a free passage. This has usually been done by making an opening into the sac, (if one does not already exist from ulceration,) with a small scalpel, and then to dilate, or force open the stricture with a probe, which must be carried down into the nose; the accomplishment of which, is known by a discharge of blood from the nostril. The probe is now to be withdrawn, and a nail-headed style introduced and worn six weeks, when it may be left out, and the wound through the integuments allowed to heal. Some patients prefer to wear the style through life. Styles are prepared of different metals---Some prefer lead. Dubois employs the silk seton of Mejan; Dupuytren the permanent tube, which is passed into the duct, and the outer wound suffered to heal. Mr. Travers does not use the style at all, but cures the stricture, by daily passing a fine probe into one of the puncta, and carrying it down through the sac and duct; treating it as

stricture of any other part. When the passage of the duct cannot be accomplished, from bony obstruction or otherwise, it is usual to pierce the os unguis at its anterior part, where the sac lies imbedded, and thus to form an artificial communication to the nose. Mr. Travers says he has never seen a case where this was necessary. In all cases the injection of warm water through the passage daily, either from the opening on the cheek, or by Anel's syringe through the puncta, is very necessary. The sac may take on common suppuration which Mr. T. says requires poultices, and common treatment, opening it as soon as necessary. As soon as this is done he passes his probe through the duct, to ascertain that it is pervious, if it is strictured, he immediately forces the stricture, and in either case withdraws the probe and heals the wound as in other abscesses, passing the small probe by way of the puncta as before stated, if necessary. Scarpa states that the disease is caused by a disordered secretion of the meibomian glands, and advises zinc lotions, and the mercurial ointments for its removal, but Mr. Travers doubts this, and supposes the complaint to be induced by severe cold in the head and coryza. Sometimes the obstruction exists in the lachrymal ducts, and occasionally the mouths of the puncta are constricted; these are easily opened with the small probe or a pin; this state of the complaint, exhibits only the watery eye and is termed *epiphora*. There may be cases of slight epiphora, or watering of eye, without obstruction in the sac. There may be also the gleety regurgitation without stricture. Such cases are to be relieved by zinc lotions and injections, and the mercurial ointments. The over dilated or patulous state of the puncta occurs in old people, and is usually combined with a swelled, and atonic state of the sac and ducts, obvious externally. It requires the same treatment. The sac is also subject to dropsy, and acquires the size of a pigeon's egg, it is transparent like hydrocele; it cannot be evacuated either by puncta, by the nose, or by pressure. Mr. Travers once laid bare, and removed about two thirds of the anterior of the sac, and a recovery followed.

Suppuration of the Eye Ball. When from injuries, very violent inflammation of the whole ball ensues; when all the remedies for subduing inflammation fail, and the patient's sufferings are very acute, and when the constitution suffers much, and there is no prospect of relief by a natural opening, the cornea, iris, ciliary ring, and some part of the sclerotica, should be divided by a deep transverse incision, and the contents of the globe evacuated. The organ should then be covered with a soft poultice.

Extirpation of the Eye. A sharp double-edged knife should be employed to divide the septum of the conjunctiva and oblique muscles, so as to separate the globe and lachrymal gland from the palpebræ and base of the orbit. The globe now admits of being drawn forwards by a ligature previously passed through its anterior segment. A double edged-knife, curved breadthwise, should then be introduced at the temporal commissure of the lids for the purpose of dividing the muscles, vessels, and nerves by which the globe remains attached. The hemorrhage should be repressed by putting a piece of soft sponge into the orbit, which should be removed the following day, and a poultice, in a bag substituted. This is preferable to filling the orbit with lint. An opiate at bed time, the compresses should be light. Consult *Scarpa, Saunders, Travers, and Adams, on Diseases of the Eye. Peach in Edin. Med. and Surg. Tour, 1807, and Vetch on Ophthalmia. Reports of London Eye Infirmary. S. Cooper's Works. Dorsey's Surgery.*

FAINTING. *Syncope.* Anxiety at the præcordia, dimness of sight, loss of the powers of mobility, paleness, coldness, diminished circulation, &c denote a partial syncope, or as it is sometimes called lipothymia. But if the syncope is complete, there is a total suspension of respiration, circulation, and all the voluntary powers, and it is then termed asphyxia. It often terminates in epileptic fits, or convulsions.

Causes. Emotions of the mind, disorder of the prima viæ, debility proceeding from other disorders or loss of blood, ossification of the heart or valves, &c.

Treatment. During the paroxysm, place the patient in a horizontal posture; apply volatiles, or burning rags, or feathers to the nose; and, if arising from debility, pour a few drops of volatile spirits in water down the throat; let the face be sprinkled with cold water, and the face and neck freely exposed to the air. If the stomach be oppressed with improper food, an emetic will be proper. Some recommend bleeding where direct debility is not present. Signs of recovery are deep sighing, and sometimes vomiting.

Its recurrence must be prevented by avoiding the exciting cause. If from debility, give tonics and antispasmodics; if from crudities in the prima viæ, emetics and purgatives; if from organic disease of the heart, aneurism, &c. occasional bleeding, cooling purges, low diet, rest, &c.

FALLING SICKNESS. *Epilepsy*, which see.

FALLING OF THE WOMB, ANUS, &c. See those parts.

FEBRIFUGES. Tartrite, wine, and powder of antimony ; liquid acetate of ammonia, nitre, spirit of nitrous ether, vegetable acids, cold affusion, cool air.

FENNEL. *Foeniculum.* (*Anethum foeniculum.*) The seeds. Carminitive, diuretic.

FEVERS. *Febres.*

The symptoms denoting fever are extremely various, depending on the kind, degree and stage of fever, the climate, sex, constitution, causes, &c. But the following symptoms taken collectively may be considered as constituting the general signs, and what is meant to be understood in this work when the term *pyrexia* is made use of. Lassitude, heaviness, listlessness ; rigours, succeeded by hot flushings ; heat of skin ; increased circulation ; foulness of the tongue ; difficult or irregular secretions and excretions ; pains in the head, generally of the throbbing kind, extending along the spinal marrow ; heat of the head while the body and extremities may be cold ; throbbing of the temporal arteries ; suffusion of the eyes ; peculiarity of countenance, and disturbance of all the functions belonging to the brain ; disturbed sleep ; watching ; accelerated respiration ; high coloured urine and costiveness, with an evening exacerbation and morning remission.

The general treatment for the removal of the foregoing symptoms, must depend upon the causes and circumstances before enumerated. It, however, for the most part will consist of the antiphlogistic treatment and regimen ; as, bleeding, generally or locally, emetics, purges, diaphoretics, diluents, acids, nitre, warm bath, rest, tranquillity of mind and body, obstruction of light, heat and all other stimuli, with a diet consisting of gruel, barley water ; fruits, and drinks of lemonade, tamarind water, toast and water, &c. &c.

The different fevers, according to Cullen's Nosology, are 1st. Intermittent ; 2d. Remittent ; 3d. Synochus, or continued fever ; 4th. Synocha, or inflammatory fever ; 5th. Typhus Mitior, Typhus Gravior, and Typhus Icterodes, and the Ephemera Simplex. They are characterized by pyrexia, without any primary or local affection. Consult Sydenham on Fever. Huxham's Works. Fordyce's Dissertations. Wilson, Jackson, Haygarth, Beddoes, Lind,

on Fever. *Pringle, Diseases of the Army. Rush, Med. Obs. and Ing. Armstrong on Typhus. Hale on Spotted Fever.*

OF INTERMITTENT FEVERS. *Febres Intermittentes.* Characterized by distinct paroxysms or periods of fever, between each there being a perfect intermission of all the symptoms, or an apyrexial period. There are three species of intermittents. 1st. The quotidian, having an interval of 24 hours; 2d. The tertian, with an interval of 48 hours; 3d. The quartan with an interval of 72 hours.

Of these there are several varieties and forms, as the double tertian; double and triple quartan, in which the regular periods of recurrence are broken. They each have a cold, a hot, and a sweating stage.

Symptoms of the cold stage. Languor, lassitude, listlessness, debility, yawning, stretching, paleness; the features and whole body appear diminished in size, and the skin constricted generally; the secretions and excretions diminished; the pulse small, frequent, and irregular; respiration short and anxious.

A sensation of cold, beginning in the back and extending itself all over the body, though sometimes confined to a particular part; rigours terminating universally; convulsive shaking. After an indefinite continuance of the shaking, the *hot stage* is ushered in by a gradual return of heat; at first in transient flushes, but soon succeeded by a steady burning heat above the natural standard. The skin soon becomes tense, red, and swollen, tender to the touch. There is now a preternatural acuteness of sensibility, with pains in the head and different parts of the body; the pulse quick, strong, and hard; tongue white, thirst, high coloured urine.

The *Sweating Stage* dawns with a moisture on the face and neck, which soon becomes general. The heat now descends to its natural standard. The pulse is full and free and less frequent, the urine deposits a sediment, respiration becomes free, and all the functions are restored to their natural order. After a specific interval, according to the species of ague, a fresh paroxysm ensues, and goes through the same course and terminating in the same way, leaving great debility between the fits. In this state the patient may remain weeks or even months; often there follows enlargement of the liver, spleen, pancreas, dropsical swellings, tendency to relapses and sometimes a fatal termination.

It is not contagious. The *Causes* are certainly marsh miasma, or effluvia arising from marshy ground or stagnant water, impregnated with vegetable matter in a state of putrefactive decomposition. A predisposition howev-

er, may be induced by debility, poor diet, fatigue, cold and moisture, suppressed evacuations or repelled eruptions. The *prognosis* is favorable when the paroxysms are short, regular, and unaccompanied with other diseases. *Unfavorable* when the reverse is the case, particularly if long continued, or complicated with organic diseases, convulsions during the paroxysm, prostration, the tongue black and dry, with fetid excretions.

Treatment. The indications are 1st. to put a speedy stop to the fit, by expediting the sweating stage by means of artificial warmth, pediluvium, fomentations, and sinapisms to the feet; warm bath, diluents, cordials, diaphoretics and opiates. During the hot fit, cold effusion, also leeches or cupping-glasses to the temples or neck, should there be any congestion suspected in the head. 2d. to prevent its recurrence; by exciting a new action in the system to destroy the morbid concatenation existing, and to invigorate the body. These ends are accomplished by the exhibition of an emetic, a full dose of opium, a drachm of sulphuric ether, applying tourniquets to the axillary and external iliac arteries on opposite sides a few minutes before the fit comes on. These remedies either destroy the fit altogether, or very much shorten its duration. During the intermission, we are to keep the stomach and bowels properly cleansed, and to administer the cinchona bark in doses of a drachm every hour or two, if the stomach will bear so much, adding to it opium, aromatics and astringents, should it run off by the bowels. Where the powder cannot be taken the decoction must be substituted, joined with sulphuric acid. To these may be added quassia, colombo, gentian, willow bark, Jamaica cinchona, &c. Zinc, iron, copper and arsenic are also used as tonics in obstinate cases. Should a cough arise it is to be treated with pectorals, blisters to the chest, &c. If the liver, spleen, &c. become enlarged, a course of mercury should be joined with cicuta,---if dropsy, diuretics will be proper. The diet should be light and nutritious with a moderate quantity of wine, change of air and climate, exercise, warm clothing, frictions, &c.

FEVER, Remittent. Febris Remittens. This disease is frequent and fatal in warm climates. It arises from the same causes as the preceding, particularly to persons much exposed to the sun during the day, and dampness of the evening. It differs principally from intermittent, by not coming to a complete abatement of the febrile paroxysm, although there are evident remissions. It begins with languor, lassitude, and other symptoms of pyrexia, attended with yellowness of the eyes and skin, pain and

swelling at the stomach, nausea and bilious vomiting, the pulse small and frequent. After a time the fever abates with a mild perspiration, and an imperfect remission takes place; but in a few hours the paroxysm returns with increased violence, and a few such repetitions destroy the patient, often in a few days. But the symptoms are apt to vary according to the situation, climate, constitution, &c. Sometimes wearing an high bilious form, at others nervous, and at others putrid. The prognosis will be favorable, in proportion as the attack is mild, and to its nearness to the true intermittent; and vice versa. It terminates in hot climates about the fifth day, in colder not till the twelfth or fourteenth.

Treatment. General bleeding, in all cases where the patient is plethoric and the pulse is full, repeating it if still indicated. Topical bleeding and blisters will also be proper where stupor or determination of blood to the brain or other part exists. Emetics and purgatives must also be given until the evacuations become of an healthy appearance. Diaphoretics and the antiphlogistic regimen are also proper. The submuriate of mercury is valuable in this disease, and may be given so as to affect the mouth if congestion about the liver or spleen be apparent. Vomiting is to be relieved by the effervescing mixture and opium. Should it assume the intermittent or typhoid forms, the treatment must be that recommended under those heads. The cinchona must be given in very large doses the moment any intermission becomes visible, suspending its use on the arrival of the next exacerbation, and resuming it upon its departure; to which may be added the metallic tonics if necessary. Every attention must be paid to cleanliness. Exercise, particularly in open carriages in warm climates, as recommended by Dr. Jackson is highly beneficial to convalescents.

FEVER, Simple continued. Synochus. Continued fevers rage with nearly the same degree of violence for an indefinite number of days, having evident exacerbations and remissions daily; generally morning and evening.

Synochus, is the synocha and typhus blended, the former preponderating at its commencement, and the latter towards its termination. It is contagious and occurs more frequently in cold climates, than warm.

Symptoms. Besides all the symptoms of pyrexia, there is a peculiar sensation of cold in the back passing thence over the whole frame, followed with rigours, alternating with flushings, till a general diffused heat over the whole body succeeds. The skin is very dry; the face flushed; violent pain in the head; pulse from 100 to 120, delirium

often coming on, particularly towards night, with an increase of all the symptoms; all the secretions and excretions more or less interrupted. It goes on preceded by hiccup, coldness of the extremities, &c. to a fatal termination, or comes to a crisis on a particular day. The fever once produced will go on for an uncertain space of time, but the 3d, 5th, 7th, 9th, 11th, 14th, 17th, and 20th are generally critical days. The crisis may be expected when the pulse becomes softened, and moderated in velocity, the tongue growing clean, with an abatement of thirst, and a gentle moisture covering the skin, the secretions performing their proper functions, and the urine depositing flaky crystals of a dirty red colour. Great debility, coma, violent delirium, intermitting pulse, twitching of the tendons, (*subsultus tendinum*) picking the bed clothes, involuntary evacuations, hiccough, &c. denote a fatal termination. Where the fever appears but partially, affecting some parts of the body and not others, is also an unfavorable omen.

Causes. Debility, produced by excessive fatigue, sexual pleasures, intemperance, passions of the mind, or otherwise, is a remote cause of fever. The application of wet or cold, exposure to noxious exhalations from marshy ground, and specific contagion.

Treatment. Authors are generally averse to bleeding in this fever, from the fear of depriving the patient of that strength which is necessary to carry him through the disease. Dr. Jackson of the British Army, however, in his writings, advises the use of the lancet, not only in this, but in malignant fevers; he conceives that a certain state of susceptibility, or liability of the system, to be acted upon, is necessary for the success of our remedies; and that this state is to be brought about, by partial or general warm bathing, but more particularly by bleeding. This state of the system is supposed to be present, when there is a general remission of pains, a softness of the pulse, relaxation of the skin and a freedom in the secretions.

In pursuing his doctrine he conceives bleeding not a process for inducing debility but rather indirectly stimulating, by lessening the volume of the circulating mass, by which means the moving power is relieved of that superabundant load with which it is burthened. There can be no doubt that bleeding is proper in all cases where age, pulse, and circumstances seem to indicate it. It may be repeated should a continuance of the same symptoms exist. Topical bleeding also, can be advantageously resorted to in case of congestion of the brain, or any other

organ. Emetics, particularly in the onset, and purgatives are proper; as in most cases the first passages are much disordered. Cold affusion when there is no catarrh, or local inflammation, or any perspiration, and the heat of the body general, and above natural standard, may be employed; and repeated daily so long as this combination of symptoms exist. Diaphoretics and refrigerants are next to be exhibited, and the patient put upon the antiphlogistic regimen, kept in bed, the light excluded from his room, and its heat kept at a moderate temperature, the body lightly covered with clothes. The best diaphoretics are the liquid acetate of ammonia, saturated lemon juice, antimony combined with nitre. They are however not so proper in advanced stages, where debility is most prominent, and the fever wears a typhoid aspect, or where their exhibition produces increased head-ach, delirium, or only partial sweating; their operation is much increased by drinking freely of diluents and using the pediluvium. Urgent symptoms to be relieved as they appear; if a vomiting comes on, it is to be checked by the use of the effervescing draught, or a blister on the pit of the stomach; if a purging, which is not deemed critical, we are to administer astringents; if much head-ach and delirium, topical bleeding from the temples, or nape of the neck, or blisters to the same parts; if much restlessness and watching, the different preparations of hop and hyoscyamus. Opium will not be proper while the fever is high and active; if coldness of the extremities should occur, with sinking pulse, &c. blisters to the legs, sinapisms to the feet, with the use of musk, ammonia, camphor, ether, wine, &c.; if much debility, wine, bark, and a nutritious diet may be given. No evacuation can be considered critical, unless attended with an abatement of the general febrile symptoms. Bark and vitriolic acid may be given before the complete crisis forms, provided there is some abatement of the symptoms. The convalescence is to be assisted by wine, good diet, airing, gentle exercise, avoiding exposure or fatigue, &c.

FEVER Inflammatory, Synocha. This fever differs from the preceding in exhibiting a much higher degree of inflammation, its being attended with a very hard pulse, raving delirium, throbbing of the temporal arteries and other symptoms of phrenitis. The eyes appear inflamed, the edges of the tongue of a bright scarlet, and the urine of a very deep red. It occurs mostly in cold climates and in plethoric habits.

Treatment. This differs from the synochus, in requiring more bleeding, general and topical, and less sweating.

The head should be shaved and evaporating lotions applied thereto, while the neck and back is to be freely blistered. The body may be affused with cold water or frequently sponged over with vinegar. To procure rest the patient may lie on a pillow of hops; opium being rarely admissible in this fever.

FEVER, Slow Nervous. Typhus Mitior. In this disease, as its name implies, there is often a degree of stupor, and affection of the sensorium. Most continued fevers are apt to degenerate into this. It differs from the typhus gravior, in the less severity of its symptoms, and in the absence of its putrescency. It is contagious, and occurs in northern climates during a season of cold, damp weather. It has been by physicians, often considered a fever depending on real debility, but the writings of Drs. Jackson and Armstrong furnish us with new views, and point out the efficacy of bleeding and other evacuants under certain circumstances. By the latter, typhus is considered under three forms, viz. 1st. the *simple*, in which the febrile excitement or hot stage is completely developed, and in which there are no decided marks of topical inflammation. 2d. the *inflammatory*, which has the same characters of general excitement as the simple, but conjoined with some visceral inflammation. 3d. the *congestive*, in which the hot stage is not, or but imperfectly developed, and in which there are symptoms of internal congestion.

Symptoms. It commences with an insidious mildness of all the symptoms, which gradually increase, such as slight shiverings, lassitude, debility, dejection, loathing of food, &c. with a slight increase towards evening. In a few days the debility becomes much greater, together with difficulty of breathing, oppression at the chest, and pains in the head, with a confusion of ideas; the tongue grows dry, which, together with the teeth, are covered with a thick brown fur; the pulse is small and weak, but frequent, and occasionally intermits; cold and clammy sweats appear on the back of the hands, while the palms glow with heat, the same may also be observed on other parts of the body; tremors, twitchings, and picking of the bed-cloths, muttering, and incoherency of speech, coma, dilation of the pupils, delirium, but not violent. In this manner it proceeds until it destroys the patient from exhaustion, degenerates into typhus gravior, or, in favourable cases, comes to a crisis about the fourteenth or twentieth day with a diarrhoea or gentle perspiration; or it may run on a month, and gradually subside without any crisis whatever. There is frequently an inequality of febrile symptoms; the exacerbations and remissions are

irregular; the heat may be partial, and the tongue moist and clean, while the other symptoms are quite violent. Sometimes a viscid ptyalism appears accompanied with aphthous ulcerations, &c.

Causes. Debility, whether induced by close apartments, poor diet, neglect of exercise, fatigue, excessive study, intemperance or venery; application of cold, especially if accompanied with moisture, specific contagion.

Prognosis. Profuse evacuation of blood from the nose, anus, &c.; copious sweating or purging; violence of the symptoms enumerated; augur a fatal termination. A gradual abatement of the symptoms in violence, moderate perspiration, gentle diarrhœa, milliary eruptions, are favourable signs.

Treatment. Where there appears to exist, either inflammation or congestion of the liver, lungs, head, or other viscera, general and topical bleeding with discretion will certainly be proper. The next important measure will be to cleanse the whole alimentary tube by emetics, purgatives, and glysters, and preserving them so throughout the disease. The cold affusion, or aspersion, or sponging the body frequently over with vinegar or common rum, are also remedies of particular value. Dr. Armstrong recommends the warm bath in some congestive cases; mild diaphoretics are also proper, particularly the liquid acetate of ammonia, or lemon juice saturated with the sub-carbonate of ammonia or the sub-carbonate of potash; blisters to the neck, head and back, leeches to the temples, or opening the temporal arteries, pediluvium and sinapisms to the feet, where there is much head-ach, or if attended with apparent fullness and congestion of the vessels of the head, or if coma and low delirium exists. Blisters are, however by many objected to; shaving the head and applying cold lotions may be substituted. The diet during the stages of excitement, inflammation, or congestion, should consist of gruel, arrow root, sago, &c. Avoid wine and other diffusive stimuli. A diarrhœa coming on, unless likely to prove critical, should be restrained by astringents; sweating by lightening the bed-clothes, admitting cool air into the room, keeping the patient's arms out of bed, and exhibiting sulphuric acid and cool drinks; hemorrhage by astringents internally, and styptics externally; watching and delirium by opium, joined with a diaphoretic, as the liquid acetate of ammonia. When the fever is more advanced the diet may be more nutritious, and wine, cider, cinchona, &c. given, and that in liberal quantities if the powers of life seem much depressed. The

infusion of capsicum, and the arsenical solution, are also powerful remedies under such circumstances.

In startings, hiccough, &c. musk, camphor, and ammonia will be proper; if the fever threatens to degenerate into typhus gravior, the mineral acids should be given. The convalescence to be promoted by riding out, generous diet, and conveying the sick in open carriages, has, in all stages of the complaint, been found highly useful. Relapses to be very carefully guarded against, contagion to be prevented by proper fumigations, ventilations, &c.

FEVER, Putrid and Malignant. Typhus Gravior. This disease differs from the preceding only in the greater violence of all the symptoms at its commencement, and the high degree of putrescency towards its close, such as livid spots of petechia upon the skin, hemorrhage from the nose, mouth, and ears, the discharge of putrid stools, deposit of a black and foetid sediment in the urine, bilious vomiting.

Treatment. This must be the same as that laid down in Typhus Mitior, even general and topical blood-letting may be proper where congestion exists. In the advanced stage, however, the most powerful antiseptics will be requisite, as the vegetable and mineral acids, particularly the muriatic; carbonic acids in drinks, as soda water in the state of fermentation, yeast, oxygen gas, oxygenated muriate of potash, cinchona, wine, &c. glysters of vinegar. Sores in the mouth and throat to be treated with gargles of muriatic acid, alum, &c. and may be applied with a swab, or thrown into the throat with a small syringe, when the patient is not strong enough to use them in the ordinary manner. The most prompt and efficacious measures to be taken to prevent the contagion from spreading by proper fumigation and ventilation.

FEVER, Yellow. Typhus Icterodes. This is a disease very common in all the West India islands, and the southern parts of the United States, extending occasionally to the northern ports. It always occurs in places upon the sea-board. It originates, without doubt, from marsh exhalations and the effluvia arising from putrid vegetable and animal substances, under a peculiar vitiated state of the atmosphere, happening more particularly after frequent rains with a succession of intense heat. But whether it be or not contagious, when once excited, is a question not yet settled. The arguments for and against it, supported by highly respectable authorities, are very numerous. My experience induces me to doubt its absolute contagiousness. I refer the reader to the works of Drs. Rush, Clark, Miller, and others, for arguments against the supposition, and to those of Dr. Hosack, Sir James McGregor's Medical

Sketches, and Sir J. Fellows' report in favour of it. Some have believed the yellow fever of the West Indies to be nothing more than a severe form of the bilious remittent of hot climates. It attacks more especially persons newly arrived from a northern climate, particularly if they are plethoric, intemperate, or expose themselves to much fatigue, heat of the sun, or the dews and night air. Next in liability are the white creoles, and lastly the negroes. Women and children of these classes respectively, still less liable. It is extinguished upon the accession of cold weather, particularly frost.

Symptoms. There are great irregularities in the symptoms of this fever, in different persons and places, but the following are most usual. Lassitude, listlessness, fainting, giddiness, rigours, succeeded by flushing, redness and pain in the eye-balls, pains also in the forehead and back, debility, thirst, coma; urine high coloured, turbid and scanty; perspiration irregular or diminished; the saliva viscid, and the tongue covered with a dark fur; heat of skin, vomiting of bile. These symptoms increase, the skin becomes yellow, with costiveness, delirium and dilation of the pupils. These phenomena continue 24 or 36 hours, and constitute the *first stage*, when a very flattering remission of all the symptoms takes place; but a fresh exacerbation shortly ensues, attended with a recurrence of all the symptoms in an increased degree, together with immense debility, livid patches on the skin; the crust on the tongue and teeth becomes black, the matter vomited is of a dark colour (black vomit); hemorrhage from the nose, mouth and ears; foetid stools, hiccup and death, generally without any further remission. If the result should prove favourable, a crisis will take place with gentle perspiration; a gradual abatement of all the symptoms, or bilious flux; an eruption on the skin, called prickly heat; sleep, moderate hemorrhages. The fluid thrown up in the black vomit, is probably a disordered secretion of the *primæ viæ*, it is perfectly harmless.

Treatment. This has been various in different parts of the globe; some bleeding profusely, others adhering to the stimulating plan. There can be no doubt, however, that in the onset, if the patient be strong and plethoric, one or two bleedings will be necessary, particularly if there are signs of local congestion; it will then be proper to cleanse the bowels by actual purgatives, such as calomel and jalap, as the bowels are generally very costive. Emetics are inadmissible, from their tendency to continual vomitings; diaphoretics joined with opium, the warm bath, fomentations and blisters to the abdomen should next be resorted

to, in order to take off the irritation and determination of blood to the stomach and intestines, which frequently is present. Mercury is to be introduced into the system so as to produce salivation as speedily as possible, by frequent doses of calomel and mercurial frictions externally; the vomiting to be allayed with the effervescing draught, with, or without opium or ether; if these fail we may employ opium in the form of glyster. The cold affusion will, in many cases, be proper; but when the disease has advanced, aspersion or ablution will be more advisable, followed with a dose of some warm cordial; ablutions of spirits by their rapid evaporation carry off much morbid heat. Cold water may be allowed for drink. Should symptoms of general putrescency come on, it will be necessary to resort to stimulants, as cinchona, capsicum, &c. either by mouth or glyster, also the mineral acids, wine, musk, camphor, and other antiseptics. The diet to consist of arrow root, tapioca, sago, &c. When a perfect remission has taken place, the cinchona and sulphuric acid may be administered, together with a cold infusion of quassia and other tonics, with a moderate quantity of wine, cool free air, gentle exercise, &c. Persons bound to the West Indies would do well, during their voyage, to use, occasionally, an emetic, and a cathartic. And if plethoric, lose a little blood, avoiding exposure and intemperance on their arrival. The Bulam fever and the yellow fever of the south of Europe, are similar to this. Consult *Dr. Fordyce's Dissertation on Fever. Dr. Cullen on Fever. Dr. Clutterbuck on do. Dr. Currie, of Liverpool, on Cold Affusion. Drs. Jackson and Armstrong. See also Drs. Rush and Chisholm, &c. on Yellow Fever.*

FEVER, Miliary. Miliaris. This is an eruptive fever, with pustules resembling millet seed; is principally confined to the female sex, particularly in child-bed; it is not contagious or epidemic. Some consider it entirely symptomatic.

Symptoms. The general phenomena of pyrexia, with a sense of itching, or pricking pain under the skin, which is soon followed by small red pustules like millet seed on the breast, neck, &c. extending over the whole body, imperceptible to the sight, but evident to the touch. On the second day small vesicles are seen on the top of each eruption, which in two or three days more break, and fall off in scales, followed by a fresh crop. There is always attending this fever, great debility and dejection of spirits, and sour rank fetid sweats. It is caused by whatever induces debility, but more particularly by keeping the patient too

warm during child birth. It is sometimes fatal by supervening symptoms of putrescency, coma, convulsions, &c.

Treatment. Avoid or remove the exciting causes, keep the patient lightly covered, the room cool, and administer cooling drinks, the primæ viæ are to be kept in a healthy state by emetics, cathartics and absorbents. Should symptoms of putrescency arise, bark, acids, wine, camphor, musk, &c. are to be used. Blisters and sinapisms, to relieve delirium, and sudorifics, pediluvium, warmth, frictions and stimulants, to restore the eruption in case of sudden recession.

FEVER, Milk. See *Breast, inflammation of.*

FEVER, Scarlet. *Scarlatina.* This disease is a contagious synocha, attended with a scarlet eruption, chiefly attacking children, and rarely occurring more than once during life. It consists of three species, 1st, *Scarlatina Mitis*, or *Simplex*. 2d, *S. Anginosa*, attended with ulcerations in the throat. 3d, *S. Maligna*, attended with symptoms of putrescency: the two last are frequently blended, and are probably one and the same disease, differing only in severity; and the latter resembles cynanche so closely as to leave little doubt of their being merely varieties of the same species.

Of the 1st, *Symptoms.* Pyrexia, and about the third day from the attack the face begins to swell, attended with an eruption upon the skin, of a scarlet colour; in three or four days more, the fever abates, with a gentle perspiration, and the disease disappears with a desquamation of the cuticle; often leaving the feet œdematous.

Treatment. This form only requires a gentle emetic and cathartic, acidulated drinks, light diet, cool atmosphere.

Of the 2d, *Symptoms.* More severe pyrexia than the preceding, with bilious vomiting, inflammation, and ulceration of the throat, the pulse depressed. The eruption appears about the third day, but does not relieve the symptoms. It extends over the whole body, the mouth and nostrils are inflamed, and pour forth an acrid fluid; the submaxillary glands are often enlarged and painful, and the throat is beset with small specks, and covered with a viscid mucus. About the fifth or sixth day, a brown colour succeeds, and the cuticle peels off in scales, and in favourable cases the patient recovers, except being now and then retarded by anasarcaous swelling and debility. But the symptoms will often become severe and destroy the patient. It is known from measles, by the absence of the sneezing and watery eye always prevailing in the latter.

Treatment. An early exhibition of an emetic, followed

by purgatives; the skin to be relaxed with mild diaphoretics; the morbid heat and dryness of the skin to be lessened by cold affusion or ablution; coma, and difficulty of swallowing to be relieved by blisters to the throat and neck, and sinapisms to the feet. Symptoms of putrescency to be checked by wine, bark, cordials, &c. The diet to consist of sago, arrowroot, tapioca, &c.; the ulcerations of the throat to be gargled or syringed with washes of alum, the mineral acids, &c; the air of the room to be kept cool, and precautions taken to prevent further contagion; the strength to be recruited with good air and exercise, wine, nutritious food; anasarca and other affections to be treated on general principles. For the symptoms and treatment of the 3d species, see *Synanche Maligna*.

It is here proper to call the attention of the reader to the *Practical Illustrations* of Dr. Armstrong, wherein he tells us that the most decided advantage is to be gained by bleeding, if performed within thirty hours of the first stage. Even in the most malignant forms, provided he is called early, he throws aside stimulants and bleeds, repeating the operation a few hours afterwards, unless the symptoms are relieved; in conjunction with this he employs the cold affusion. Consult *Drs. Blackburne and Peart on Scarlet Fever*. *Dr. Armstrong's Practical Illustrations on do.*

FEVER, Surgical. These are two; *the inflammatory* and *the hectic*. *The inflammatory, symptomatic, or sympathetic*, is produced by the irritation of a local injury upon the constitution. It exhibits pyrexia of the synocha type. Its treatment must be directed to the removal of the cause. See *Inflammation*.

The Hectic. The preceding is the immediate effect upon the constitution, from receiving some local injury; this is the remote effect, and has generally been preceded by supuration. The part does not heal, and the constitution seems to be oppressed with a load from which it cannot rid itself. It may be considered as *medical*, as in *phthisis* or *scrophula*, when the original disease claims primary attention; or *local*, when the effect of local injury, as compound fracture. A distinction should be made between those cases arising from the severity of the wound in a good constitution, and that arising from the badness of the constitution. A much less quantum of disease will produce hectic when situated in a vital part, than when not so. The disease may possibly exist idiopathically.

Symptoms of hectic. Debility; frequent small pulse; copious flow of urine with sediment. The tongue moist,

frequent vomiting, and a disposition to sweating; there is always an exacerbation in the evening, when a circle of a florid red colour appears on each cheek; towards morning it goes off with a profuse sweat, or colliquitive diarrhœa.

Treatment. Palliatives in incurable cases, as, astringents, to suppress the diarrhœa; light bed covering, cold drink, and sulphuric acid, to check the perspiration; bark, nourishment to support the strength. If it arises from consumption, syphilis, cancer, scrophula, these diseases must, if possible, be removed; if arising from a bad constitution it must be remedied by alteratives, tonics, &c.; if from an external wound or ulcer, that requires primary attention. If amputation be contemplated, the nicest judgment is required to decide when to abandon all hopes of cure, and to resort to the operation. Opium in all cases will be found very useful in procuring rest and preventing diarrhœa. See *Hunter on Inflammation. Cooper's Surg. Dict.*

FIGS. *Ficus.* The fruit. Demulcent, ad libitum, externally, as a cataplasm to the mouth, gums, face, &c. when boiled.

FINGERS, Supernumerary. Children are sometimes born with more than the natural number of fingers; they are generally without nails or muscular power, and situated on the outside of the little finger. They should be amputated while the child is young, with a scalpel, taking care to leave a sufficiency of integument to allow the wound to unite by adhesion, with the assistance of adhesive plaster. No vessels need be tied.

FISTULA in ano. See *Anus.*

FISTULA, Salivary. This disease is produced when the parotid duct is divided, either by wound, ulcer, or gangrene. The saliva then, either extravasates itself into the adjacent cellular membrane, or oozes out of the external aperture of the wound, while the other part of the duct becomes impervious. Dyspeptic symptoms arise from the loss of saliva, which is necessary for the processes of mastication and digestion.

Treatment. When created by a recent incised wound, attempts should be made, with suture and adhesive plaster, to produce an union by the first intention. In obstinate cases Desault caused the gland itself to be absorbed by long continued pressure, relying upon the other glands for a proper supply of saliva. If the fistulous opening be in the gland itself, a cure may be effected by the frequent application of caustic, or by the graduated compress and bandage. Desault was also successful in many cases, by making an artificial opening into the mouth for the saliva to pass. This he performed by passing a small trochar

through the cheek, close to the orifice of the duct nearest the gland. This orifice he kept open by means of a seton, drawn close to the aperture from within side of the mouth, taking care to allow a thread only to come through the outer opening, which he confined with a piece of sticking plaster, changing it frequently. A small piece of lint, with a compress and bandage, occasionally touching the orifice with caustic, is all that is required. As soon as the new passage is established, the seton is to be discontinued, and the outer wound allowed to heal. The patient, in all cases, during the cure, is to live on liquids, and on no account to move the muscles of the face by mastication or risibility. *Consult Desault and Monroe's Works.*

FLAX SEED. *Lini Semina.* *Infusum Lini*, pectoral, emollient ℥ij. to iv. Externally, the powdered seeds are used in the form of cataplasm. *Oleum Lini*, (Linseed oil) externally to burns, &c.

FLOODING. See *Abortion and Menses.*

FOMENTATIONS, Emollient. Water, or milk and water, decoctions of chamomile flowers, &c. &c. *Anodyne.* Decoctions of poppies, cicuta, henbane, &c. *Resolvent.* Vinegar, spirits, solutions of muriate of ammonia, muriate of soda, &c. in conjunction, or not, with other fomentations. All fomentations are applied hot.

FROSTS, Effects of on the human body. When any part of the body is frozen, it assumes a white colour, becomes hard, and insensible, attended with little pain, and the sufferer frequently has the first intimation of the circumstance from some other person.

Treatment. The object, in all cases, must be to restore caloric to the part gradually; for if done suddenly, inflammation and mortification of the part will certainly take place. This is best accomplished by rubbing the part with snow, or bathing it in cold water. As soon as sense and motion are restored, the frictions should consist of brandy, camphorated spirits, and the like, and gentle perspiration excited, by putting the patient to bed in a room without fire, and giving him some mulled wine. The whole body may be in a state of asphyxia from cold, when besides the above measures, inflating the lungs, &c. will be proper. See *Asphyxia*. Persons have been thus restored, after remaining several days in this state. Should mortification occur, it must be treated accordingly. See *Mortification*.

FLUOR ALBUS. See *Leucorrhœa*.

FLUX, Bloody. See *Dysentery*.

FOXGLOVE, *Digitalis*. The leaves. Sedative, diuretic, grs. i. to v. *Infusum Digitalis*, f. ʒiij. to ʒi. *Tinctura Digitalis*, ℥. x. to xl.

FRAMBŒSIA. See *Yaws*.

FRACTURES. These are of two kinds, *simple*, or a division of the bone without any external wound, and *compound*, when there is an external wound, caused by the protrusion of the broken ends of the bone. There are also other distinctions as *complicated*, when attended with injury of large nerves or blood vessels, and *comminuted*, when the bone is broken in different places. Fractures are denominated *oblique*, *transverse*, or *longitudinal*, agreeably to the direction they take.

Symptoms. Pain, loss of motion, and after a short time, swelling, tension and inflammation; but the most positive symptom is a crepitus or grating, felt on rubbing one end of the broken bone upon the other. If its existence be doubtful, the whole length of the bone should be carefully traced with the fingers. The *causes* of fracture are, blows, falls, occasionally the violent action of strong muscles; scurvy, cancer, and rickets, often cause the bones to break from slight causes.

Treatment of Simple Fracture. Having prepared a many tailed bandage, adapted to the size of the limb, a piece of soap plaster, and splints well guarded with tow or cotton wool, and a soft pillow, place the patient on a firm level bedstead, fitted with a mattress or straw bed, upon his back; then let two assistants make moderate extension upon the limb, one above the fracture, the other below, while the surgeon replaces exactly the broken ends of the bone. This being effected the soap plaster is to be applied around the fractured part, next the many tailed bandage, and then the splints, securing all moderately tight with tapes. The limb is then to be placed on and secured to the pillow and kept perfectly still. As the contraction of the muscles tend to displace the fracture, particularly if oblique, the limb had better be put in the position of semiflexion. If there be much swelling and inflammation it will be proper to reduce these symptoms by bleeding, using cold lotions, &c. before the bandages and splints are finally applied. The after treatment consists in keeping down inflammation, should any occur, by relaxing the bandages, applying cold lotions, &c.; in adjusting and tightening the splints as they become loose; and adopting the moderate antiphlogistic regimen. Sometimes spasmodic twitching occurs in the limb, which is apt to displace the fracture; bleeding and opium are recommended in such cases, though opium is by some objected to. There are frequent

instances where union will not take place, from inactivity or incapability of the vessels to throw out bony matter ; in such cases it is advisable to put the patient on good diet with wine. Some direct their patients to get out of bed and attempt exercise ; others rub the ends of the bones against each other, with a view of exciting the necessary action. If these fail, cutting down upon the fracture has frequently been resorted to, and sawing off the ends of the bone and resetting the fracture. Dr. Physick passes a seton through the part. Mr. Abernethy says, the greatest reliance is to be placed upon long continued rest. A detached portion of bone has occasionally been found to keep the ends of the bone apart, and prevent union ; in such cases it must be cut down upon and removed. Should it continue some months in this state, partial, or ligamentous union takes place ; allowing motion at the part ; it is then called, *artificial joint*. The usual period in which fractures unite, is, in the fore arm, three weeks ; in the upper arm and leg, four or five ; in the thigh, five to seven. The patient's own feelings can best guide him when to venture out of bed. Frictions, use of liniments, &c. are then useful.

Of particular Fractures.

The Thigh. There are two positions in which the limb is placed by surgeons in this fracture ; one, perfectly straight ; the other bent at the knee and upon the pelvis, (by placing a cushion under the ham) to prevent the action of the strong muscles. Both methods are found nearly equally favourable. Mr. Pott used to place the thigh and leg upon its outside, bent in the same direction, and used two splints only : most surgeons now use four. Desault's splints act upon the principle of perpetual extension, and are much preferred by some. See an interesting paper, by Dr. Gibson, in *Phila. Med. Jour.* Feb. 1822. See also Dr. Flagg, in *New Eng. Jour.* 1821.

Of Fractures through the neck of the Os Femoris.

I am indebted to Mr. (now Sir Astley) Cooper, for the following valuable matter. See *Surgical Essays, Part 2d.*

These accidents he describes as of very frequent occurrence, and are of two kinds, 1st, *within the capsular ligament* ; 2d, *without it*, either through the root of the cervix or through the trochanter major ; the former he calls *internal*, the latter *external*.

Of 1st. Symptoms. The limb is one or two inches shorter than natural, caused by the contraction of the muscles ;

this retraction is easily reduced, by drawing down the limb, but regains its former situation as soon as the extension is discontinued: the foot and ankle are turned outward, and are attended with much pain when put into action, particularly if that motion be inwards; the trochanter major is drawn upwards towards the ileum; the prominence of the hip is diminished. All these appearances are also obvious, if the patient be placed in the upright posture. Crepitus cannot be discovered until the limb is extended, so that the fractured ends of the bone may be brought into apposition; it is most obvious if the rotation is made inwards. This accident is rarely ever seen under fifty years of age, being exclusively confined to an advanced period of life. It is easily produced, particularly by slipping from the side-walk into the carriage way. The *diagnosis* between these accidents and dislocations, will be found under the latter head. Sir Astley has never seen one instance of fracture within the capsular ligament followed by bony union, and doubts if it ever does; the union is always ligamentous. This, he says, depends on, 1st, *want of apposition in the ends of the fractured bone*, (for, two portions of bone will not unite by bone, unless kept in close contact,) which is prevented by the action of the strong muscles in the vicinity, displacing the bones upon the slightest motions of the body, such as passing the urine, feces, &c. which even tight bandages cannot prevent. 2d, *want of pressure of one end of bone upon the other*; and which is the principal cause. A large quantity of watery synovia is secreted by the capsular ligament soon after the accident, which, if the capsular ligament is not torn, tends to distend its cavity and force the ends of the bone asunder. 3d, *little action in the head of the bone*, in consequence of its being, when separated from its lower part, supplied with blood entirely through the ligamentum teres alone. It should be borne in mind, that, till three or four hours after the accident, the muscles do not contract, consequently there is little or no shortening of the limb immediately after the receipt of the injury. This has been one source of mistakes.

Treatment. As a bony union does not take place, Sir Astley says, we adopt the following mode. "We place a pillow under the whole length of the limb, and put another across this under the patient's knee; and thus, by keeping it elevated, we procure an easy bent position of the limb: in this situation the patient remains, until the inflammatory process, consequent to this accident, has ceased, which is from a fortnight to three weeks; we then allow the patient to rise from her bed, (the accident chiefly occurs to

females,) and to sit upon a high chair, to prevent a degree of flexion which would be painful; in a few days crutches are allowed; after a time the crutches may be laid aside, a stick substituted for them, and in a few months the patient can walk without any assistance except a high heel shoe, which is, however, always necessary." Should the surgeon be in doubt, as to the seat of the fracture, it will be advisable to treat the case as if it were a fracture without the ligament. The degree of, and duration of the lameness, will depend on the age, corpulency, and constitution of the patient. It is sometimes fatal in old persons.

Of external Fracture of the Cervix Femoris, or Fracture without the Capsular Ligament.

Symptoms. Shortness of the leg, eversion of the foot and toe, as in the fracture within the ligament; but it may be known from it, by the accident almost always occurring under the age of fifty, while the other, almost always occurs above that age. This accident too, is caused by extremely violent falls, blows, or the passing of a carriage over the part, &c.; while the other is very easily produced; the pain too, is much more severe, more especially upon motion; the crepitus is obvious also, without extending the limb; it is also, not more than an inch shorter than the sound limb, and the degree of rotation is greater, and above all, it will unite by ossific matter.

Treatment. Sir Astley adopts the following plan: "The patient is to be placed on a mattress on his back, the thigh is to be brought over a double inclined plane, composed of three boards, one below, which is to reach from the tuberosity of the ischium to the patient's heel, and the two others above have a joint in the middle, by which the knee may be raised or depressed; a few holes should be made in the board admitting a peg, which prevents any change in the elevation of the limb, but that which the surgeon directs; (or, instead of the last boards, a pillow may be rolled up and placed under the knee;) over these a pillow is thrown to place the patient in as easy a position as possible. When the limb has been thus extended, a long splint is to be placed upon the outer side of the trochanter major, and to the upper part of this is fixed a strong leather strap, which buckles around the pelvis, so as to press the one portion of the bone upon the other; and the lower part of the splint is to be fixed with a strap around the knee, to prevent its position being moved; the limb must be kept as steady as possible for eight weeks, when the patient may rise, if it does not give him much pain; he is still to retain

his outer splint and strap, a fortnight, and he ultimately recovers a good use of the limb."

Of Fractures below the Trochanter.

These are very difficult to manage. The upper end of the bone is drawn forwards and upwards, so as to form nearly a right angle with the body of the thigh bone; this is caused by the contraction of the iliacus internus, psoas, and other muscles. Pressure upon the projecting bone only adds to the patient's sufferings.

Treatment. Two principles are required to be observed; "the one is to elevate the knee very much over the double inclined plane, and the other to place the patient in a sitting position, well supporting him by pillows during the progress of its union; the degree of elevation of the body which is required will be readily ascertained by observing the approximation of the fractured extremities of the bones; and this position is demanded, to relax the psoas and iliacus muscles, and thus prevent the elevation of the upper part of the bone. In this way, and this only, can the great deformity I have described be prevented. When by this posture the extremities or the bones are brought into proper apposition, and all projection of its upper portion is removed, either the splints may be applied which are commonly used in fracture of the thigh-bone, or, what is better, a strong leather belt lined with some soft material, should by means of several straps be buckled around the limb."

FRACTURE OF THE PATELLA. This bone is usually broken transversely, though occasionally longitudinally, and mostly by the action of the muscles inserted into it. The patient immediately falls down, a chasm is felt between the two fragments, which on being brought together will produce a crepitus. The longitudinal fracture is the effect of external violence.

Treatment. The object is to overcome the contraction of the muscles, and to keep the fragments in a state of close apposition. This is effected by pulling the leg perfectly straight, and laying it on a long splint reaching from the pelvis to the heel, relaxing the thigh upon the body by elevating the lower end of the splint. The two portions of bone to be pushed close to each other, and retained so by compresses and bandages, (one carried from the heel upward, the other from the upper part of the thigh downward, and then connecting them together by means of tapes.) Some employ merely compresses, and a bandage carried above and below the knee in the form of the figure 8. I have seen an instrument used for this purpose, con-

sisting of a circular strap and buckles above and below the knee, approximated by lateral longitudinal straps and buckles. The union is almost always ligamentous. The longitudinal fracture requires lateral compresses and bandages, rest, and the straight position of the limb. *Ruptures of the tendon of the rectus, or the ligament of the patella*, require a similar treatment to that of transverse fracture of the patella.

FRACTURE OF THE LEG. If the tibia be fractured, it is easily felt by passing the finger along its anterior part. If both bones, it is made evident by the deformity. If the fibula only, the patient can still bear the weight of his body and a crepitus can be discovered by abducting and adducting the foot, pressing on the part supposed to be fractured.

Treatment. Some surgeons choose the bent position, in setting these fractures, the leg lying on its outer side. Of this number was Mr. Pott. Others choose the straight position, resting upon the heel with a splint on each side. A fracture of the fibula is sometimes caused by a dislocation at the ankle; the tibia is thrown off the astragalus inwards, rupturing the ligaments, and sometimes bursting through the integuments, while the foot is thrown outwards, and upwards, and the fibula becomes broken. In this accident it is very difficult to keep the parts in their proper places, from the strong action of the muscles, whose tendons pass down behind the tibia and fibula to be inserted into the outer side of the foot. Mr. Pott says, that if the limb be kept bent, and laying on its outer side, the splints and bandages will then do their duty.

FRACTURE OF THE UPPER ARM. In fractures of the body of this bone, some use two splints, others four; the fore arm to be carried in a sling. If a fracture in the neck of the bone be suspected, its head should be firmly fixed with one hand, with the other we should make examination, while an assistant rotates the arm upon its own axis; the crepitus will then be distinguishable. In this case a compress should be placed in the axilla, four inches wide, tapering off at its lower part to a point, to act as a splint on the inner side, while two or three splints are next to be applied around the arm; the arm is then to be fixed to the body, by means of a long bandage passing around the whole apparatus, and then around the body. In fractures at the condyles there is but little displacement; the muscles arising from the part should be relaxed, soap plaster and the figure of 8 bandage applied. When the external condyle is fractured, the mischief extends into the joint; it will then be necessary to give early passive mo-

tion to the joint, to prevent ankylosis; in other respects the treatment is the same.

OF THE FORE ARM. The ulna and radius may be broken in their middles, or at their extremities, and when both bones are fractured it is quite obvious from the distortion. If only one bone be broken, the crepitus can be easily felt on rotating the arm. It requires but little extension, being seldom much displaced. Two splints only are here required, one on the inside, the other on the outside; the arm to be placed in a sling lying midway between pronation and supination, that is, with the palm of the hand towards the patient's breast. The bandages should not be made too tight, lest adhesions be produced among the muscles from too much pressure. The inner splint should not extend beyond the last joints of the fingers, or they are apt to become rigid from too long extension.

FRACTURE OF THE OLECRANON. "This case is easily distinguished, by the detached piece of bone being drawn upward from the rest of the ulna. The treatment consists in relaxing the triceps and anconæus, by placing the arm in an extended position; in pushing downward, and replacing the arm in an extended position; in pushing downward, and replacing, the detached part of the olecranon; and in confining it in a proper situation by means of compresses and a circular bandage, applied immediately above the point of the broken process. The arm is to be kept constantly extended by a splint, put in front of the arm and forearm. After a time, it is recommended to move the elbow very cautiously and gently, in order to prevent the occurrence of a stiff joint." *S. Cooper.*

FRACTURES OF THE METACARPAL BONES, AND FINGERS. "In the first sort of case, the hand is to be laid on a flat splint, after a piece of soap plaster, and a roller, have been applied. When the fingers are fractured, surgeons are usually content with keeping the part steady by longitudinal pieces of pasteboard put over the soap plaster, along each side of the finger, and tied on by tapes. The hand should be kept at rest in a sling." *Id.*

FRACTURE OF THE OSSA NASI. "The lower portion of these bones is most subject to be broken by external violence. The two ossa nasi are not always broken together; sometimes one is fractured all across, while the other, without having suffered any solution of continuity, is either elevated or depressed. These cases are often attended with a fracture of the perpendicular lamella of the os ethmoides, which process, in this circumstance, always becomes distorted to one side, and may be easily moved with

the little finger, or a probe. Such accidents are commonly accompanied by inflammation of the pituitary membrane, swelling of the whole nose and face, ophthalmy, a great degree of hemorrhage from the nostrils, obstructed respiration, nay, the blow, which has broken the ossa nasi, may also have produced a concussion of the brain; an extravasation of blood within the cranium; or pressure on the brain, from the crista galli being actually driven inward." *Ib.*

Treatment. "The displaced portions of bone are to be raised, or dedressed, to their proper level, by introducing a probe, rolled round with lint, to the upper part of the nostril, and moving the pieces of bone into their proper position, by means of the conjoint operation of the probe on the inside, and of the fingers on the outside of the fracture. If the perpendicular process of the os ethmoides should be beaten to one side, it is to be replaced, as well as circumstances will allow, with the aid of a probe. If there should be reason to conjecture, that the crista galli is driven inward, and compresses the brain, the surgeon, after elevating the bony arch, formed by the ossa nasi, should gently endeavour to draw down the perpendicular lamella of the ethmoid bone." "If the broken pieces should have a propensity to fall inward, they must be supported by dossils of lint, smeared with any softening ointment, and introduced under the fracture." *Ib.*

FRACTURE OF THE LOWER JAW. The different fractures of this bone can be easily distinguished by the external appearance, and by feeling the crepitus when an accurate examination is made externally, and within the mouth. If the fracture be not displaced, it will only be necessary to apply pasteboard, softened in vinegar, to the outside of the jaw, along its side and under its basis. Over this is to be applied a four-tailed bandage with its centre upon the chin, the two posterior tails being pinned to the fore part of the night cap, and the two anterior to the back part of the cap. A piece of soap plaster may also be applied to the skin under the pasteboard. When the pasteboard is dry, it cases up the jaw and keeps the fracture in its place. If the fracture be displaced, it is to be reduced, and the same dressings applied. If it be perpendicular it is sometimes useful to tie with cat gut, or gold wire, a tooth in each of the fractured portions. If teeth are thrown out, they should be replaced, if practicable. There is often much hemorrhage from the rupture of the artery of the jaw; but it generally ceases when the fracture is replaced. The patient should not talk or laugh, should live on liquids, and if all his nourishment was conveyed into the stomach.

by means of a hollow bougie, it would be preferable, and infinitely better than the use of clysters.

FRACTURE OF THE CLAVICLE. This is quite apparent, and the mode of reduction practised by the English surgeons, is, to direct an assistant to draw the shoulders well back, while another raises the arm so as to take off the weight of the limb; the surgeon is then to reduce the fracture, apply a piece of soap plaster, and the figure of 8 bandage from shoulder to shoulder across the back, quite tight; the arm to be kept well supported by a sling, and pads should be placed at the edge of the axilla to prevent chafing. Desault's and Boyer's bandages, act upon the principle of keeping the fractured end of the bone outward, and are certainly preferable to the figure of 8. They place a graduated compress in the axilla, and bind the elbow and lower part of the humerus close to the side, keeping the arm in a sling.

FRACTURE OF THE SCAPULA. When the fracture exists in the body of the spine of this bone, it is only necessary to apply soap plaster, the spica bandage, and keep the arm in a sling. When the acromion is broken off, the same applications are necessary, besides relaxing the deltoid muscle, by placing a cushion between the arm and the body to keep the former elevated. If the coracoid process be fractured, the same applications are proper, besides relaxing the muscles connected with it, as the coracobrachialis and biceps, by bringing the arm forward upon the chest, and keeping the hand supine, and confining it with a bandage. If the neck of the scapula be fractured, the arm must be kept well up, by means of a short sling, and the same applications made as above. The arm must be kept quiet.

FRACTURE OF THE STERNUM. If merely a solution of continuity has taken place, nothing is required but soap plaster, a roller around the body, bleeding, and the antiphlogistic treatment. But if there is a depression, a variety of dangerous symptoms occur; as, difficulty of breathing, coughing, palpitation, and inflammation of the thoracic viscera. The depressed portion must be removed, by applying the trephine, or Hey's saw, followed by copious bleeding, purging, &c. suppuration, caries, and fistulous openings into the anterior mediastinum often intervenes, and must be treated accordingly.

FRACTURE OF THE RIBS. A fracture of a rib, if not obvious to the eye from displacement, can generally be discovered by placing the fingers on the suspected part, and directing the patient to cough when the crepitus is perceivable. The indication is to replace, and confine the

fractured part, and to prevent respiration from being carried on by the muscles of the ribs, by means of a broad bandage carried tightly around the chest. Bleeding, rest, &c. will be then proper. Blisters, opium, and pectorals, if cough should arise. (See *Emphysema*, also, *Wounds of the Chest*.) Fracture on both sides sometimes occurs, the same treatment is however applicable. In a very few cases the broken ends of the ribs are so driven into the thorax, that the application of the bandage endangers the lungs; therefore, when the bandage produces an increase of symptoms, it must be either loosened or entirely removed, and we must trust to bleeding and the other remedies.

FRACTURE OF THE VERTEBRÆ. When the spinous and other processes are fractured, they are to be replaced, and confined there by compresses and bandages; but if the body of the bone be broken, paralysis of all parts supplied with nerves below the injury immediately takes place, with other alarming symptoms. It is dangerous to make any attempts at reduction in any of these cases, and the plan of applying the trephine and other operations cannot be recommended. A fracture of the upper cervical vertebræ, or of the processus dentatus; destruction of its ligament from scrophula or accident, generally cause instant death.

FRACTURE OF THE OS COCCYGIS. In this case the finger well oiled, is to be passed into the rectum, and, with the assistance of the fingers of his other hand, the surgeon is to replace the bones, afterwards applying soap plaster and bandage; bleeding, &c. The patient must not sit down or lie on his back for some time.

FRACTURE OF THE OS INNOMINATUM. This occasionally happens from the passing of a carriage over the pelvis. Little can be done, but passing a catheter, bleeding, enjoining rest, and the antiphlogistic regimen.

OF COMPOUND FRACTURE. This is one of the most important cases in surgery, it requires the most prompt decision and action; when the bone is fractured, and the soft parts seriously injured, amputation is often necessary, and, when resolved on, must be carried into effect immediately, as inflammation begins upon receipt of the injury. If, when we are called, the inflammation has attained considerable height, it is too late to perform the operation. It will be then proper to resort to antiphlogistic means to reduce such inflammation, which effected, and a free suppuration commenced, an opportunity is again offered for amputation, should it be necessary, from constitutional irritation. But the great question for the surgeon to decide

is, in what cases amputation is really necessary, as no certain rules can in all cases be laid down. If, however, the fracture should extend to a joint, the removal of the limb will, in all probability, be proper, in order to prevent the patient from perishing, either by the inflammation immediately supervening, or from sinking under the discharge and irritation consequent upon the inflammation. Also, if, with the fracture, the large blood vessels are wounded, or if the laceration of the soft parts be very extensive, the operation may be necessary. But the judgment of the surgeon, after having taken into consideration the nature and extent of the parts injured, the climate, local situation, constitution, &c. is chiefly to be relied on. If we attempt to preserve the limb, we are to reduce the fracture, apply splints, &c., as in a simple case, adopting most rigidly the antiphlogistic regimen, keeping down inflammation by saturnine lotions, cathartics, bleeding, &c.; though some object to the latter remedy, owing to the great reduction of strength always attendant upon the suppuration. After the bone is reduced, the lips of the wound are to be held in close contact by adhesive plasters, in order, if possible, to produce union by the first intention, which will reduce it to simple fracture. But if the wound goes on to suppurate, we are to make use of such remedies as the case seems to require, taking especial care to disturb the limb as little as possible. Sometimes it may be necessary to saw off a projecting piece of bone, or to dilate the orifice before reduction can be effected, and, if the bone be denuded of its periosteum, it will be a further inducement to remove it, as it in all probability would exfoliate. Small fragments of bone, which prick, and irritate the soft parts, should be removed, if they cannot be reduced to their proper places. Oftentimes it will happen, even in cases previously considered favourable, that the suppuration, irritation, hectic, &c. prove too much for the constitution, and amputation may be at last necessary to save the patient's life. Here the judgment of the surgeon is a second time called upon, to decide on the proper moment for its accomplishment. Pure air, particularly in the country, conduces very much to a favourable issue. Compound fractures require more than double the time to effect a cure than simple. Consult *Pott on Fracture*. *C. White's Cases*. *Boyer*. *Œuvres Chirurg. de Desault, par Bichat*, Tom. 1, &c. *S. Cooper, Surg. Dict.* *Dorsey's Surgery*.

FUMIGATION, in surgery, means any application in the form of steam or vapour.

FUMIGATION AND VENTILATION. The most efficacious fumigations are those consisting of the nitric or muriatic acid gases. They are prepared in the following manner. Put half an ounce of nitrate of potash, powdered, into a saucer, which is to be heated over a lamp, or in a vessel of warm sand; on this pour two drachms of sulphuric acid; this yields a sufficient gas to fumigate a cube of ten feet. If muriatic acid gas be preferred, put one pound of common salt into an earthen vessel, and pour over it, at intervals, sufficient sulphuric acid to moisten it: heat will increase the extrication of gas from this mixture. Subsequent ventilation should be always employed.

FUNGUS. A sponge-like excrescence, also luxuriant granulations, requiring escharotics for their removal.

FUNGUS OF THE DURA MATER. This is a fungous tumor growing from the surface of the dura mater; it receives from the brain a pulsating throbb which, pressing against the skull, causes absorption of the bone, through which the fungus protrudes, and appears under the scalp. The pains which were before severe, are now increased, from the irritation produced by the jagged edges of the bone upon the sides of the tumor; in this state the tumor can be reduced with an abatement of pain. If, however, the tumor be large, symptoms of pressure on the brain will be felt on attempting its reduction. It is mostly caused by blows or other external injuries; it is quite dangerous.

Treatment. Make a crucial incision through the scalp, dissect up the flaps, and with Mr. Hey's saw cut away the bone surrounding the tumor. The tumor is then to be removed, by dissecting out part of the dura mater with which it is connected. Ligatures and caustics cannot be recommended.

FUNGUS HÆMATODES, or Spongoid Inflammation. This is a very malignant and fatal disease. It was always confounded with cancer until the researches of Burns, Hey, Freer, and Wardrop pointed out the difference. The disease consists of a tumor made up of a soft substance resembling brain, intersected with membranous partitions, cells, and abscesses. As soon as ulceration takes place an incurable fungus shoots up, attended with frequent hemorrhages, which ultimately destroy the patient. The eyeball, extremities, liver, lungs, mammæ, &c. have been attacked with it.

Symptoms. It begins with a smooth, even, elastic, fluctuating tumor, afterwards becoming more irregular, the skin thinner in different places, and of a livid red colour. Openings at length form, from which is discharged a fetid, thin, bloody matter; funguses shoot out from the aper-

tures, which occasionally bleed profusely; the integuments around the ulceration are red and tender; the neighbouring glands swell, and partake of the same disease, become ulcerated, and exhibit the same phenomena; hectic arises, and death closes the scene. It often follows external violence, generally its cause is totally unknown.

Treatment. There is no medicine, with which we are acquainted, that has any control over this disease; its only remedy is of the part; but other parts are frequently contaminated when the disease occurs.

FUNGUS HÆMATODES OF THE EYE. See page 149.

FUNGUS HÆMATODES OF THE TESTICLE. In this case the growth of the tumor, which may begin in the testicle or epididymis, is slow, and attended with little pain. The swelling in time becomes very large, and is so elastic as to be mistaken for hydrocele; from which, however, it may be known by want of the transparency, and from the swelling always beginning at the bottom of the scrotum. From cancer it can be distinguished by absence of the peculiar circumscribed hardness of scirrhus. Ulceration at length takes place, and fungus does not appear. The inguinal glands often slough extensively. An early extirpation of the tumor affords the only hope of success.

FURUNCULUS. See *Boil*.

FUROR UTERINUS. See *Nymphomania*.

GALBANUM. The gum-resin. Antispasmodic, expectorant, deobstruent, grs. x. to dj.

GALLS. *Callæ.* The nest of the cynips. Astringent, grs. x. to dj.

GAMBÔGE, *Gambogia.* The gum-resin. Emetic, cathartic, grs. v. to x.; very useful in tænia, joined with calomel. *Pilulæ Gambogiæ et Scammoniacæ*, cathartic, grs. v. to x.

GANGLION. A hard, smooth, moveable tumour; without pain, seldom suppurating, but when it does, producing an ill conditioned ulcer; slow in its growth, generally of the size of a hazlenut, though sometimes larger, occurring over tendinous parts, particularly the hands and fingers; it is encysted, and contains a fluid resembling the white of an egg; often caused by a bruise or sprain.

Treatment. Promote absorption, by pressure with a piece of lead and roller, by rubefacients, by frictions of mercurial ointment and camphor, by muriat or soap plaster. If these fail, the ganglion must be extirpated, particularly if pendulous; or punctured with a needle. Sir A. Cooper cures many, by giving them a hard blow with a book, piece of wood, or the like, which ruptures the

cyst and the fluid is absorbed ; passing a seton into them also proves effectual.

GANGRENE. The first stage of mortification, which see.

GARLIC. *Allium.* The root. A powerful and diffusible stimulus : hence its utility as an expectorant, diuretic, carminative, sudorific, &c. in leucophlegmatic habits. *Syrupus Allii*, f. 3j. to iij. Externally stimulant and rubefacient, in cataplasms, &c.

GASTRITIS. See *Inflammation of the Stomach.*

GASTRODYNIA, or *Pain in the Stomach.* This affection often occurs in dyspeptic patients; the pain is very violent, and comes on in paroxysms, generally after eating, which continue an hour or more. Its violence is to be moderated by the use of ether and opium, and its return prevented by the application of a blister to the stomach; the exhibition, after the primæ viæ are cleansed, of oxide of bismuth and other tonics, as in dyspepsia. The pain and oppression at the stomach is generally produced by repletion, indigestible food, flatulence, cold, &c., and is relieved by emetics, carminatives, warm applications externally, &c.

GASTROCELE. *Hernia of the Stomach.*

GENTIAN. *Gentiana.* A powerful tonic bitter, grs. x. to dij. *Extractum gentianæ*, grs. x. to dj. *Infusum gen. compositum*, f. 3ss. to ij. *Tinctura gen.* f. 3j. to iij. *Vinum gen. com.* f. 3ss. to j.

GIDDINESS. *Vertigo.* This affection arises from an over-fullness of the vessels of the head; or is symptomatic of indigestion, hysteria or hypochondriasis. The swimming of the head comes on at intervals, all objects around the patient seem to him to have a rotatory motion, he staggers, and seizes on something to keep himself from falling. When symptomatic, it is not dangerous, and ceases upon the subsidence of the primary affection. But when caused from overfulness, general and topical blood-letting will be proper, together with frequent doses of cooling physic, low diet, issues to the shoulders, &c. to prevent it from terminating in apoplexy or palsy.

GILLENIA. The root.

GINGER. *Zinziber.* The root. Stimulant, carminative, gr. x. to 3ss. *Syrupus Zingiberis*, f. 3i. to iij.

GLEET. This disease consists of a discharge from the urethra after a gonorrhœa, and differs from it in being un-infections, and in the discharge consisting of globules mixed with *mucus* instead of globules mixed with *serum*. It is kept up from debility and relaxation of the urethra. It

for the most part appears in weak habits, It is sometimes symptomatic of stricture or of a diseased state of the prostate gland.

Treatment. Stimulating injections, such as two grains of oxymuriate of mercury to eight ounces of water. Also sea-water. Stimulants also internally, as Balsam Copai-bæ. Cold bathing, general and local; a blister to the perineum, moderate exercise, horse-riding, &c. The injections should be used many days after the discharge has entirely ceased, to prevent a relapse. If constitutional debility be present, bark, wine, generous diet, &c. If symptomatic, bougies, &c. as directed in those diseases which give rise to it.

There is another kind, called *simple gleet*, which arises without any previous gonorrhœa and is uninfectious. It yields to cooling physic and mild injections of solution of lead, zinc, &c. A *purulent ichorous discharge* sometimes takes place around the corona glandis, attended with swelling and inflammation of it and the prepuce, caused by a morbid secretion of the glandulæ odoriferæ. It readily yields to cooling purges, cold washes, poultices, and frequent injections of a solution of lead under the prepuce; keeping the prepuce separated from the penis by the interposition of a piece of fine linen, frequently wetted. See *Hunter on Venereal Disease*.

GOITRE. See *Bronchocele*.

GOLD. *Aurum. Auri murias.* Antisyphilitic, also used for glandular swellings, gr. 1-15. See *New-York Dispensatory*.

GONORRHŒA VIRULENTA, or *Clap*. This disease is contracted during coitus. It shows itself in the form of an infectious discharge of matter from the urethra of the male, and the vagina, nymphæ, &c. of the female. It is separate and distinct from lues venerea, although it may exist in company with it.

Symptoms. At any period, from a few days to a few weeks, (but generally from six to twelve days) from the period of the infection, an itching begins at the orifice of the urethra, attended with a fullness of its lips; shortly afterwards, the discharge takes place, when there ensues a violent smart and burning in voiding the urine; the gland is smooth and swollen, and often looks like a ripe cherry. The size of the stream of urine is diminished from the swelling and from spasmodic contraction of the urethra. The stream of urine is often broken, and sometimes forked; this discharge at first is a whitish, pellucid fluid, which gradually assumes the appearance of pus, and is sometimes white, at others yellow or green, occasionally

mixed with blood. The discharge proceeds from the lacunæ in the urethra. Inflammation sometimes reaches to the bladder, producing an inability to retain the urine, also to the glands of the groin, producing sympathetic bubo; chordee and swelled testicle also occasionally occur.

Treatment. The disease being inflammatory, it will be necessary to treat it as such. If the symptoms run high, bleeding from the arm will be proper; we may also apply leeches, or open a vein upon the penis. Purgatives, as salts and the like must be freely administered, and the antiphlogistic regimen rigidly enforced; mucilaginous diluents as barley-water, flax-seed-tea, gruel, &c. drank copiously. The penis should be constantly bathed in cold saturnine washes. After a few days, when the inflammation has somewhat abated, we may order moderately astringent injections, as the sulphate of zinc, one grain to an ounce of water, gradually strengthened; also the superacetate of lead, in proportion of two grains to an ounce. The oxymuriate of mercury, one grain to an ounce, will be useful when we want a strong astringent; together with the balsam capaibæ, and other astringents internally. Opium, at night, to allay irritation. It requires no mercury, and the injections should never be used until the inflammation is in some degree subdued. The piper cubeba has lately been highly recommended as a *specific* in gonorrhœa, in doses of a drachm three times a day; my experience of its efficacy, however, does not justify the high commendations bestowed on it; the same is remarked by others.

Sympathetic Bubo. This arises from irritation merely, and not from absorption of the matter of gonorrhœa, as formerly supposed. It resembles the swelling in the groin, arising from irritation of a corn, sore on the foot, &c. It has less pain than the true venereal bubo. It requires the application of leeches, and cold evaporating lotions; the antiphlogistic regimen and horizontal posture. No mercury.

Irritability of bladder, in gonorrhœa. This organ is sometimes rendered so irritable that the patient is obliged to evacuate his urine every five minutes. It is to be relieved by opiate clysters, bleeding, leeches to the perineum, warm bath. Should it continue after the inflammation has departed, cold bathing, blister to the perineum, uva ursi and other tonics.

Chordee. This arises from the inflammation depositing coagulable lymph in the cells of the corpora cavernosa of the penis, which being thus distended, the corpus spon-

giosum does not, when an erection takes place, receive a corresponding degree of distention, hence a curvature of the penis ensues, attended with very severe pain. It requires bleeding, leeches, warm fomentations, poultices, opium, &c. After the inflammation is subdued, the effused matter is absorbed, to promote which, we may apply camphorated mercurial ointment. Consult *Hunter on the Venereal Disease. Whately on Gonorrhœa. Dr. J. Adams on Morbid Poisons.*

GOUT. *Podagra.* Of this disease there are four species, the *regular*, the *atonic*, the *retrocedent*, the *misplaced*.

Symptoms of the regular gout. This is usually preceded, though not invariably, by what are called the premonitory symptoms which continue for some days, as dyspepsia, lassitude, coldness and numbness of the limbs, with a sense of pricking, cramps. the veins of the legs become varicose. At length, the paroxysm comes on about two in the morning, with excruciating pains in some one of the smaller articulations, generally at the great toe, attended with fever, throb, and inflammation. Towards morning the patient falls asleep, a gentle perspiration breaks out, and the paroxysm terminates, when the part is found much swelled, inflamed, and the patient unable to bear the least weight on it, or the slightest motion. The next night renews his sufferings, and he has a repetition of the same paroxysm, in the same manner. This is continued night after night until the attack finally subsides either by a profuse sweat, discharge of urine or other evacuation. Chalky concretions sometimes form in the joints affected, particularly the fingers, greatly impeding their motion, and sometimes forming an opening in the skin, from which chalky matter issues in large quantities.

In the *atonic species*, a gouty diathesis prevails, yet no inflammatory affection of the joints takes place. In such cases, the stomach is often affected with flatulence, acidity, oppression and other dyspeptic symptoms: in other cases, the head is affected with pain, giddiness, apoplectic symptoms, &c.; in others the thoracic viscera with palpitation, asthmatic symptoms, &c.

The retrocedent gout. After a violent paroxysm of regular gout, it suddenly leaves the joints and falls on some internal part, producing all the symptoms of the atonic species, in a most violent degree, often producing death in a very short time.

The misplaced gout. Instead of producing inflammation in some one of the extremities, it attacks some vital organ, producing the same symptoms which appear in inflammation of those parts from other causes. The *causes* of gout

are hereditary predisposition, plethora, high living, indolence, nimia venus, sedentary habits, use of acids, and more immediately by the application of cold; sudden passions, severe evacuations, sprains, sudden change in the mode of life. Its *proximate cause* is imperfectly understood. It is generally supposed to be an accumulation of acid matter about the ligaments of the joints, or accumulations of blood merely. It is known from rheumatism by the antecedent dyspepsia, by its usually attacking the smaller joints, and its being chiefly confined to the middle period of life and to the male sex; especially free livers.

Treatment of the regular gout. The premonitory symptoms to be removed by emetics, cathartics, &c. as in dyspepsia, by general and local blood-letting. If the head, the liver, lungs, or other parts be much affected, promoting any disposition there, as the hemorrhoidal flux which always relieves gout in a particular manner. During the attack, the patient should be confined to his bed, the part kept in a gentle perspiration by covering it with fleecy hosiery, or fine flannel, and if the patient be young and plethoric, local bleeding with the antiphlogistic regimen. But in persons in advanced life, or of an infirm habit, the diet may be more nutritious with a moderate quantity of Madeira or sherry wine. Sudorifics, diuretics are also proper, keeping the bowels moderately open. The mind should be by no means irritated but soothed under the calamity with which the body is suffering.

With a view of shortening an attack of gout, some physicians have recommended general bleeding, when the inflammation is violent. Dr. Kinglake a few years ago announced to the world the success attending his practice of applying cold water to the inflamed limbs, but as he considered gout merely a local disease, little benefit could be expected to follow a treatment predicated upon such narrow views. But the attention of the profession has lately been drawn to an excellent treatise on gout by Dr. Scudamore, who treats the complaint upon rational principles. He at once attacks the *primæ viæ*, the disordered state of which in this, as well as in rheumatism, constitutes the grand source of irritation, by freely opening the bowels, administering calomel and antimony as alteratives. He relieves the pain by opium at night, by applying an evaporating lotion composed of one part of alcohol and three of the mixture of camphor, with boiling water sufficient to bring the whole to a degree of heat between 75° and 85°, at which temperature it is to be always used, together with the antiphlogistic regimen. After the abatement of the inflammatory symptoms, he commences a

moderate tonic plan together with the use of liniments, frictions and bandages. The meadow-saffron has lately been recommended for diminishing the pain by its sedative effects. Future attacks should be prevented by avoiding exciting causes, by regular and moderate living, exercise, frictions, and more especially an healthy state of the digestive functions. After the attack has gone off, we are to promote the recovery of the patient's strength by means of tonics, gentle exercise, &c. avoiding acids of all kinds and occasionally taking magnesia or other antacid to correct the acidity which always afflicts gouty subjects.

In the treatment of the atonic, we are to preserve the action of the stomach and bowels, to avoid debilitating causes, wet, cold, and excesses, by wearing flannel, and blistering the extremities, by removing any urgent symptom which may operate.

In the *retrocedent*, administer cordials, warm brandy and water, musk, ether, ammonia, &c. apply blisters, and local bleeding, and solicit the return of the gout to its original situation by warm bath to the parts, frictions, synapisms, bleeding, if the symptoms become alarming.

In the *misplaced*, we are to use the same remedies as in inflammation of the part.

In the progress of the complaint, the kidneys are often affected, and calculi are formed, chalky concretions too are formed upon the joints, which frequently make their way to the surface by ulceration. Consult *Ring and Scudamore, on Gout*.

GRANULATION and CICATRIZATION. The first of these terms implies the process which nature adopts for filling up wounds or ulcers which do not heal by adhesive inflammation; the latter implies healing or skinning. The difference between uniting by adhesion, or by the first intention, and that by granulation, is this, that in the former, adhesive matter, albumen, or as it is used to be called, coaguable lymph, (see *Union by the First Intention*) is thrown out, when, if the sides of the wound be brought into close contact, vessels shoot into it in parallel lines, completely organize it, invest it with all the attributes of the original fabric, and identify it with adjacent parts; thus forming an indissoluble bond of union. In the latter, adhesive matter is thrown out in the same way at the bottom of the wound, into which vessels shoot in the same manner, but in radiated lines, part of which terminate on the surfaces of the granulations, and secrete pus. From these, fresh granulations shoot and so on, until the cavity is filled up. During this process, the granulations have a remarkable tendency to contract, or draw together the sides

of the ulcer, the skin at the same time yielding, by which the scar is, fortunately, much less in size than the original wound. In this manner large ulcers and cavities are filled up. Granulations are red, hard, and spherical, of a bright red colour; but when they appear large, soft, flabby, or become livid, they are unhealthy. Granulations are apt to be too luxuriant, and spring up above the edge of the wound, and prevent it from cicatrizing, when the term *fungus*, or proud flesh is applied; their destruction by escharotics is then necessary. Granulations are apt to be absorbed or to mortify. They partake of the nature of the part from whence they grow; thus, when sprouting from bone they are quite insensible, but when from a highly organized part, they are extremely sensible. Wounds in cartilage, however, unite by bony matter, that of muscle by ligament, and some other exceptions.

The granulations having nearly filled up the cavity, cicatrization or skinning begins, and that most generally by an elongation from the old skin, though sometimes it begins in the centre, like, as Mr. Hunter says, little islands, though he was of opinion that an insular portion of skin never occurred unless there had been a previous wound. Mr. S. Cooper, however, offers facts which differ from Mr. Hunter. The new skin is generally drawn down in the centre and puckered, is very vascular and liable to be broken. The rete mucosum is not so readily renewed, for wounds in blacks remain a long time white. See *Hunter on Inflammation*. *S. Cooper's Works*, &c.

GRAVEL AND STONE. *Lithiasis.* Urinary calculi are divided by Dr. Wollaston into four classes: 1st. the fusible calculi, consisting of phosphoric acid, magnesia and volatile alkali, called by Fourcroy the ammoniaco-magnesian phosphate; 2d. the mulberry-calculi, consisting chiefly of oxalate of lime; 3d. the bony earth-calculi, made up of phosphate of lime or animal earth; and 4thly, the uric acid-calculi. The latter kind are by far the most prevalent. Calculi are found in four different parts of the urinary organs: 1, in the kidney, where the nuclei originate; 2, in the ureter; 3, bladder; 4, urethra. A fit of the gravel is attended with a fixed pain and soreness in the loins, on the same side on which the stone is situated, sickness, flatulence, vomiting, &c.; dark appearance of the urine like coffee-grounds, from a mixture of coagulated blood. There is also a deposit of reddish brown sand in the urine on becoming cold. If a calculus be passing down the ureter towards the bladder, pain is felt in the hip and thigh, extending along the crural nerve, with a retraction of the testicle on the side on which the irritating

body is passing ; the discharge of water is partly obstructed and bloody : in both those cases a natural cure sometimes takes place from the stone ulcerating its way into the rectum. It sometimes proves fatal.

Treatment. If the symptoms are violent, threatening nephritis, bleeding and the antiphlogistic regimen will be proper, also the warm bath, purgatives, opium ; anodyne clysters until the symptoms are removed. The patient should drink freely of linseed tea, solutions of acacia-gum, barley-water. Bladders of warm water should be constantly applied to the bowels, and when the pain has been for some time fixed, the application of a bladder of ice or snow has proved singularly efficacious. Diuretics and blisters are improper. The diet of persons subject to gravel should be light and nutritious, avoiding acids and wines abounding with tartar. When the calculus at length gets into the bladder from the ureter, the patient experiences much relief, and, if small, it may pass on to the urethra and be discharged, or again meet with obstruction there, requiring bleeding, warm bath, &c. and oftentimes it is necessary to dilate the urethra with bougies and to extract it with a pair of forceps, if near the end of the urethra : in other cases it has been found indispensable to cut into the canal of the urethra and extract it. But if it happens that the calculus is retained in the bladder, it increases in size, produces various morbid affections, and leaves the patient no alternative but death, or the severe operation of lithotomy. In such cases he feels an acute burning pain at about three fourths of an inch from the end of the penis, the urine is voided very frequently and with great difficulty, sometimes by drops, and sometimes in a full stream, suddenly interrupted by the falling of the stone against the upper orifice of the urethra attended with much pain at the neck of the bladder, more especially if there is much irritation in the organ. In straining, the patient often passes urine and feces at the same time ; is afflicted with tenesmus, piles, prolapsus ani ; riding, or other rough motions increases all the symptoms. At length the mucous membrane of the bladder becomes ulcerated, when the urine will exhibit a whey-colour, attended with a discharge of blood and matter ; this terminates in the death of the patient, as the operation is now too late. The presence of stone in the bladder may be known from disease of the prostate gland, by the difficulty experienced in the commencement of micturition in the latter case, while in the former, the pain and obstruction is felt when the bladder is nearly empty, occasioned by its contraction around the extraneous body. Nephritic complaints are

most frequent in persons advanced in life, of sedentary habits, or much afflicted with gout; but the formation of *stone in the bladder* is particularly liable to occur in boys. In females, it is rare, that a stone grows to any considerable size, the less complicated structure of the parts favouring its early escape from the bladder. In warm climates the relaxed state of the urinary organs allows of the ready discharge of stone or sand from all of them.

Treatment of Stone in the Bladder. When the symptoms of stone are clear and well defined, and when, upon examination of the bladder with a sound, a calculus is distinctly felt, and the state of the patient is favourable for the operation, lithotomy should be performed. But when the patient is advanced in life, and his constitution is much debilitated, or the bladder diseased, or he will not consent to the operation, we must resort to the *palliative treatment*.

As we know of no means by which stone or gravel already formed can be dissolved, our efforts must be directed to the prevention of its farther increase; and in doing this, we must be governed by the species of calculus existing, as some require acids, and others alkalis. Dr. Wollaston informs us, that the *1st kind, or fusible calculus* is highly soluble in carbonic acid, and consequently more so, in the weakest possible impregnations; any vehicle then, slightly acidulated with muriatic acid, is an eligible remedy: that the *2nd, or mulberry species* is very difficult of solution, but that Fourcroy found it to be acted on by a solution of nitric acid: that the *3rd, or bone-earth-kind*, is soluble in muriatic acid: and that the *4th, or friable calculus*, is acted upon by weak alkaline preparations and lime-water. The last being most frequent, has been subjected to the greatest number of lithontriptics; the most common in use is the *solution of potass*, (*U. S. Phar.*) which is particularly recommended by Sir Astley Cooper, in his lectures; for, independently of its lithontriptic powers, he supposes it highly efficacious, in all urinary affections, in allaying the irritation of the parts. Sir Everard Home recommends the use of magnesia, which prevents the formation of uric acid in the stomach, from which the greater part of gravel is produced; but it would seem, that it must not be given to too great an extent, or there will be a disposition to produce the phosphates. The state of the urine then is to be examined, and magnesia or muriatic acid given, as either seems indicated. The soda and potass-waters are also useful. See *Lithontriptics*. Peruse *Drs. Wollaston's and Pearson's Account of the varieties of urinary calculi, in Med. and*

Chirurg. Review, vol. 4, p. 481, and vol. 5, p. 306. Also Sir E. Home, in the *Philosophical Trans.* 1810.

GUIACUM. *Guiaci Lignum.* The wood. *Decoctum Guiaci*, alterative, antivenereal, f. $\frac{3}{4}$ ij. to iv.

GUIACUM. The resin, *Guiaci Resina.* Sudorific, stimulant, grs. x. $\frac{3}{4}$ ss. *Tinctura Guiaci*, f. $\frac{3}{4}$ ij. to f. $\frac{3}{4}$ ss. f. $\frac{3}{4}$ j. to ij.

GUINEA-WORM. See *Worms.*

GUM RED. See *Eruptions.*

GUM YELLOW. See *Jaundice in Infants.*

GUTTA ROSEA. See *Pimples.*

GUTTA SERENA. See *Eyes.*

GUN-SHOT WOUNDS. See *Wounds, Gun-shot.*

HÆMATOCELE. See *Testicle, Diseases of.*

HÆMATEMESIS. *Hæmaturia, Hæmoptysis.* See *Hemorrhage from the Stomach, Bladder, and Lungs.*

HAIR PLAITED. *Plica Polonica.* A peculiar kind of disease to which the poorer inhabitants of Poland, Lithuania, &c. are liable. In this disease, the hair of the head, and sometimes of the pubes, is twisted and glued together by a morbid secretion from the scalp. It is said to be contagious, and by transferring the matter upon the nails, from the head to some other part of the body, troublesome sores are produced. Larrey however denies its power of contagion. It is cured by shaving off the hair and using the same means as advised for *tinea capitis*.

HARE-LIP. *Labia Leporina.* This is an original malformation, and mostly occurring in the upper lip. Sometimes there is but one fissure, at others two, when the intermediate portion, if it be long and broad, should be preserved in the operation, otherwise removed. In some instances the fissure extends into the nostril, at others through the upper jaw and bony palate, making the cavities of the mouth and nose one, causing great defect of speech. Sometimes the front teeth project so much as to render their removal necessary.

The operation is performed by paring off the edges of the fissure with a knife, carrying it as high, and removing as much substance at the upper part of the fissure as may be necessary to make it terminate in an acute angle; the wound will then exhibit a perfect triangle. Next draw the edges together, retaining them by the introduction of two hare-lip-needles, one at the base of the triangle, the other about half way up, they should not be carried deeper than half, or two-thirds of the thickness into the substance of the lip. The needles to be retained in their places by

means of a piece of waxed thread carried across the wound from one end of the needles to the other, and obliquely from the upper to the lower, and from the lower to the upper, securing the whole with a bandage. The patient should not laugh or talk. At the expiration of four or five days, the needles should be withdrawn, and the parts supported with adhesive plaster. The operation should not be attempted till the child is two years old; and, if the hare-lip is double, the cure on one side should be first performed. Some surgeons use ligatures alone, without the needles. Dr. Rand, of Boston, from the circumstance of the proneness of children to sleep during the first week or two after birth, conceives that that age is the most favourable for the performance of the operation, and has related some successful cases of this sort in the *Trans. London Med. Soc. vol. 2.* When there is a fissure through the anterior part of the jaw, it, in a great degree, closes after the operation on the lip; but when it extends along the palate, so as to prevent the child from swallowing or articulating, it will be proper to operate much earlier and to attempt to cover the aperture in the palate with a thin plate of silver, having a piece of sponge attached to its upper surface; the sponge, being dry, passes through the fissure quite readily, when it immediately increases in bulk, by absorbing the surrounding secretions, sufficiently to retain the plate in its proper position. There is sometimes accompanying the hare-lip, a projection of the upper jaw, causing deformities of different kinds, but all are much relieved by bandages worn so as to make pressure on the projecting parts. It will rarely ever be admissible to cut away portions of the jaw, as some have done. Consult *B. Bell's and S. Cooper's Surgery. Desault's Works, by Bichat. Book 2d, &c.*

HEADACH. *Cephalalgia*, May be general over the whole head, or partial. It sometimes occupies so small a spot that it may be covered with the finger. It is sometimes idiopathic, as when it arises from exposure to the intense rays of the sun, inebriety, preternatural determination of blood to the part, &c. But it is most commonly symptomatic of other diseases, as fever, hysteria, and other nervous affections. Its treatment must be governed by its causes; thus, if it should be found to depend on a foul stomach, an emetic will be proper in the evening, followed the next morning by a cathartic, and afterwards tonic bitters; if from plethora or from too great a determination of blood towards the head, bleeding, generally and topically, purging, antiphlogistic regimen, erect posture, and wearing nothing tight around the neck, avoiding violent

exertions, shaving the head, and applying evaporating lotions : if from translation of gout or rheumatism, apply blisters and synapisms to the extremities, and give some warm purgative ; if from a supposed effusion into the brain, perpetual blisters, issues, setons, and sternutatories ; if from suppressed evacuations or repelled eruptions, these must be restored ; if from costiveness, the bowels must be kept open with cathartics ; if from sedentary habits, free air, horse-exercise, walking, &c. When the pain is of long continuance, and proper evacuations have been made, opium may be proper, also belladonna, particularly if the pain be acute and intermitting. Periodical headaches are relieved by the exhibition of the arsenical solution. When symptomatic of other diseases, they claim primary attention.

HEADACH, with *plethora in pregnant Women*, is to be relieved by general bleeding, applying leeches to the temples, or opening the temporal artery, together with cooling purgatives, and moderate diet, and mental tranquillity.

HEAD, Injuries of. **WOUNDS OF THE SCALP.** What is said on wounds in general, will, for the most part, equally apply here. There is, however, a connexion by blood-vessels between the outer and inner parts of the cranium, in consequence of which, wounds of the scalp are not always free from danger. The knowledge of this fact should induce us to be alert, should symptoms of phrenitis show themselves. Contusions of the scalp, are quickly followed by effusion under the tendon of the occipito-frontalis muscle, which, at first sight, seems so like fracture and depression as, without careful examination, to be easily mistaken for that injury. Absorption, however, soon takes place, particularly if assisted by cold lotions and purges. Cuts of the scalp always afford much hemorrhage, but it is easily repressed by compress and bandage. In lacerated wounds, all the integuments possible should be saved. Matter forming under the scalp requires a free evacuation to prevent its diffusion. All wounds of this part are liable to be attacked with erysipelatous inflammation, particularly in crowded hospitals. This seems to depend on a disordered state of the hepatic and gastric systems, indicated by vomiting, foul tongue, bitter taste in the mouth, &c., and require the use of antimonial emetics and other evacuants. See *Erysipelas*.

OF CONCUSSION. This is a contusion or general irritation of the whole brain from external violence. The skull being struck, it becomes flattened at that part, while its opposite sides are proportionally widened, as in the case with every round elastic body ; the brain consequently re-

ceives a shock, which disorders its functions, and which has a tendency to produce a determination of blood to the part. Concussion happens in different degrees of violence from slight stunning up to total extinguishment of life. It is divided into two stages: 1st, When, from the violence of the blow, the patient is thrown into a state of total insensibility; his extremities are cold; pulse weak, slow, and intermitting; respiration hardly perceptible. In this state all evacuations are to be avoided, while cordials, friction, and the pediluvium, are proper, with a view to produce reaction. In the *second stage*, the symptoms of the first disappear; the eyelids are open, the pupil contracts, the patient vomits, and becomes sensible to surrounding objects; the pulse rises, and increases rapidly, followed by general excitement, wild incoherency of looks and actions, delirium and other symptoms of phrenitis. If these symptoms be not speedily removed, suppuration or effusion will take place, and symptoms of compression ensue. As soon then as this stage has commenced, the symptoms must be restrained by copious general and local bleeding, repeating them as often as may be necessary to keep the pulse down; we are also to apply blisters to the back, neck, and head, and sinapisms to the feet; to adopt the antiphlogistic regimen vigorously; and exhibit purges, particularly those containing small doses of tartrite of antimony, repeating them sufficiently often to keep up a constant action of the bowels; and apply cold washes to the scalp. The apartment of the patient must be kept dark, still, and cool. After the patient's recovery, it often happens that he is affected with imbecility, change of character, and often the memory is so much injured, that none but the early impressions of childhood are remembered; thus a man who spoke an acquired language will totally forget it, and speak none but his native tongue. Tonic is the principal remedy in such cases, assisted occasionally by an emetic and cathartic, and blisters to the head. Desault and other French surgeons direct their remedies principally to the liver, in consequence of the sympathy existing between the head and this organ; the disorder of the brain is supposed to act on the liver, and the liver to react on the brain: hence their treatment is, repeated doses of tartrite of antimony: blisters and poultices to the head, and bleeding very sparingly.

FRACTURE OF THE CRANIUM. When the breach of continuity of the bone is very fine, it is called a *fissure*; when the breach is great, it is called a *fracture*; when the injury happens at a distance from the part which has received

the blow, it is called a *counter fissure*, or *fracture*. In fracture, the bone either remains on a level with the adjacent parts, when little or no danger may be expected, or is depressed; in the latter case, the dura mater may be lacerated, or symptoms of compression may ensue. The outer table of the bone may, however, be depressed, but not so the inner, when of course no symptoms of compression will result. The inner table too may be broken, and not the outer. Counter fissures can only be produced when a broad flat body strikes the head; the force is then conveyed equally to all parts of the cranium, and the weakest part gives way, consequently there is never any depression or comminution of bone. But if an angular body strikes the head with sufficient force, the bone at the part, of course, is then broken. Fractures often extend through the basis of the skull, particularly if the patient has fallen from a considerable height on the summit of his head. This is often fatal. The nature and extent of the fracture is to be ascertained by the eye, and by examination with the fingers, after cutting away the hair, as well as making incisions through the scalp if necessary. Hemorrhage from the nose, mouth, and ears, only denote the violence of the blows, though some say, these symptoms indicate fracture of the basis. The dangers following a fracture are, symptoms of concussion from the shock merely; inflammation of the brain and its membranes, from laceration of these parts by spiculæ of bone; extravasation of blood; formation of matter.

The *treatment* of fractured skull, in the greater number of cases, consists of bleeding, largely and repeatedly, from the arm, temporal artery, and jugular veins, together with the application of leeches and capping glasses. A constant irritation is to be kept up upon the bowels by purgatives, and the antiphlogistic regimen adopted. All to be continued for two or three weeks, as the patient is not safe from inflammation during that time. If the bone is much shattered, the fragments are to be replaced as well as the case will admit, and if symptoms of compression arise, the trephine must be applied, and the irritating part of the bone removed. Mr. Hey's saws will be found very convenient for cutting away pieces of bone which cannot be replaced.

COMPRESSION. Compression, whether arising from depressed bone, the pressure of extravasated blood, or from matter in the substance of the brain, or effusion into the ventricles, gives rise to the following symptoms. Upon receiving the injury, the patient has more or less symptoms of concussion. After recovering from these, he re-

lapses into a drowsy state, loses his sensibility and falls into a state of apoplexy; the eyes are half open; the pupil dilated; the iris immoveable, even if a candle be brought close to the eye; no vomiting; the pulse slow and regular; the urine and feces pass off involuntarily; paralysis of the side opposite the injury; respiration difficult and stertorons. Compression and concussion may exist at the same time.

Treatment. When there has been a distinct intermission and recovery of the senses, between the first stunning effects of the blow, and the accession of the symptoms of compression, we may be assured that extravasation of blood has taken place. But oftentimes the symptoms of concussion and those of compression are so blended as to involve the case in much uncertainty. However, when insensibility of the iris, paralysis and stertorons breathing are present, we are bound to apply the trephine. Here fresh difficulties often present themselves; for if there is not any depression, we know not where to apply the instrument. In such cases, we are to make the perforation where we find any traces of external violence, particularly if it be opposite to the side which is paralyzed. In those unfortunate cases where no external marks can direct us, and the symptoms continue urgent, it is proper to perforate the bone over one of the spinous arteries of the dura mater, and, if extravasation be not found here, to perforate the side opposite. Having extracted a portion of the skull, if we are so fortunate as to find blood, it is to be carefully sponged out. The blood, instead of being upon the surface of the dura mater, is oftentimes under it, when it would hardly be proper to make an incision for its exit, even if the membrane appeared puffed out and protruded. It would certainly be more advisable to suffer it to diffuse itself between the dura and pia mater, than to wound so delicate a membrane. Very frequently the extravasation is in the ventricles, or in the substance of the brain itself. Such cases must be abandoned to the resources of nature, confining our efforts to the prevention of inflammation by general and local bleeding, purging and enjoining rest, low diet, &c. In consequence of these difficulties Desault renounced the operation, during the latter part of his life, nearly in toto. Mr. Abernethy has remarked, that when blood lies upon the dura mater, the bone above does not bleed when scraped. Compression from matter is preceded by symptoms of inflammation and the formation of pus; there is also a puffy circumscribed tumour upon the scalp, over the collection. If there exists a wound on the scalp, and matter be underneath, its edges lose their vermilion-

hue, and the pericranium separates from the skull. This case requires the immediate application of the trephine, and the evacuation of the matter, and then pursuing the same means for averting further inflammation as before mentioned.

THE OPERATION OF TREPHINING. This consists in making a perforation through the skull in order to elevate depressed portions of bone, or to give exit to extravasated blood, or to matter. The parts of the head directed to be pierced with the trephine are the parietal bones, the upper parts of the os frontis and the os occipitis. But although the other parts of the cranium are not so safe for the application of the instrument, yet, in cases of necessity, we may trephine the different sutures, even the sagittal, for so little danger is there in wounding the longitudinal sinus beneath it, that it has been actually punctured with a lancet, in order to bleed the patient. The anterior and inferior angle of the parietal bones too, may be operated on, for the vessel there situated can be easily secured. The frontal sinusses also may be trephined, provided we use a smaller instrument for the inner table, after the outer is removed. The muscular substance on the squamous portion of the temporal bone, and that also upon the lower part of the occipitis, are not to be obstacles in very urgent cases. The operation is to be performed upon a sound part of the skull, by making an incision through the sound part of the integuments, in the most convenient place for applying the elevation, in the form of a cross, or the letters T or V. The flaps are then to be dissected back, and the pericranium scraped off; the trephine is next to be applied, with the centre-pin advanced about one fourth of an inch; an alternate rotating motion is then to be made by the pronation and supination of the hand, until the saw has formed a groove for itself, when the pin is to be withdrawn. As soon as the saw has passed the diploe, we are to proceed more cautiously, occasionally feeling with a flat probe if any part of bone is entirely cut through, in order to avoid injuring the dura mater. When the whole circumference is nearly separated, it is to be lifted out with the elevator, and the small fragments of bone carefully removed from the edge of the perforation. The elevator is now to be used for raising the depressed portion, in effecting which it is sometimes necessary to trephine on the other side of the depression. Having carefully removed all blood, matter, &c., the flaps of the scalp are to be carefully brought together, and dressed with simple dressing and bandages. Sometimes depressed pieces of bone can be removed with the assistance of Hey's saws without re-

sorting to the trephine. Consult *Pott, Hill's Cases of Surgery. Desault's Cases in the Parisian Chirurg. Jour. Abernethy on the Head. S. Cooper's Surg. Dict.*

HECTIC FEVER. See *Fever*.

HELLEBORE, American. *Veratum viride*. The root. Similar in properties to the white hellebore. *Tinctura veratri viridis. Unguentum veratri viridis*.

HELLEBORE, Black. *Helleborus*. The root, grs. x. to ℥j. *Extractum hellebori nigri*, grs. v. to x. *Tinctura hellebori nigri*, f. 3 ss. to 3 ij.

HELLEBORE, White. *Veratrum album*. The root. Internally, powerfully emetic; it is, however, used in small doses in rheumatic cases, and was supposed to be the basis of the *Eau Medicinale*. Dose grs. iij. to x. *Vinum veratri albi*, ℥ v. to x. *Decoctum ver. alb.* applied as a wash to tinea capitis, psora, &c. When powdered, sternutatory.

HEMIPLEGICA. See *Palsy*.

HEMLOCK. *Conicum*. The leaves. Narcotic, alterative, celebrated in cancer, grs. iij. *Extractum conii*, grs. i℥. to grs. iij.

HEMORRHAGE, or Involuntary Discharges of Blood. *Hæmorrhagiæ*.

OF HEMORRHAGE IN GENERAL. An excessive and preternatural flow of blood from any part of the body. It is divided into two forms, viz. the *active* or that accompanied by, and chiefly dependent on a general increase of force as well as frequency of arterial action; and the *passive*, or that which happens without such general action, but merely from congestion, or from extreme weakness of the vessels, with or without a dyscrasy in the blood. When hemorrhage occurs in fevers, apoplexy, vertigo, &c. it commonly proves critical and salutary. Piles are remarked for carrying off a fit of the gout, &c.

The approach of hemorrhage is marked by a sense of general heat and fulness, or by sudden flushes, sometimes alternating with chilliness, but always accompanied by unusually frequent, generally throbbing, and sometimes hard pulse; together with certain uneasy feelings, referred to the part especially from whence the blood is about to flow. When the vascular action arises from general hemorrhagic commotion or effort, it subsides more or less, as the bleeding proceeds; if not, some other cause of pyrexial affection may be suspected. The blood is of a florid red colour, and, when drawn from a vein, exhibits a buffy appearance as in phlegmasia.

Causes. Predisposing. Hemorrhagic tendency, often connected with sanguineous temperament, weakness of the vascular structure in certain parts, plethora, stopping

oustomary discharges, often hereditary malformation of certain organs.

Exciting. Whatever increases the violence of the circulation, as external heat. Diminished pressure of the atmosphere, as upon ascending high mountains. Violent muscular efforts, as running, lifting weights, loud speaking, blowing wind-instruments, fits of passion, ligatures producing local congestion, exposure to cold, liable to be begotten by repetition, external violence, as blows, falls, &c.

Treatment of active hemorrhage. The indications are, 1st, to avoid or remove such causes as continue to exist. 2d, to lessen the distention and impetus of the blood by bleeding generally and locally, by allaying irritability of the heart and arteries, with sedatives, digitalis, acetite of lead. 3d, by taking off irritation arising from the stomach and bowels, by means of gentle emetics, purgatives and clysters. 4th, by allaying pain, and taking off too great a determination of blood from particular parts, by procuring an equable distribution of it throughout the vascular system, which is to be effected by the use of opium, hyoscyamus, diaphoretics, nauseating doses of emetic remedies, sailing, swinging, &c. The patient must be put upon the antiphlogistic regimen and carefully avoid any motion.

Treatment of passive hemorrhage. This form is known by the absence of febrile action, and by the presence of debility, but is often the consequence of the continuance or repetition of the active form. The indications are, 1, to allay pain or other local irritation by opiates, cold applications, purgatives. 2, to suppress the hemorrhage by the use of astringents internally, as alum, kino, acetate of lead, &c. and by the use of styptics externally to the part, as cold water, solutions of lead, zinc, sulphate of copper, vinegar. 3, to restore any suppressed evacuation by issues, setons, diaphoretics, emmenagogues, &c. 4, to increase the tone of the system by cinchona, myrrh, chalybeates, wine, generous diet, &c., cold bath, moderate exercise. When hemorrhage comes on in the advanced stage of other diseases, attended with putrescency, we must, besides the most powerful astringents and styptics, resort to the mineral acids, and other antiseptics. Consult *Jones on Hemorrhage*. *Cooper's Surg. Dict.* *Travers in Med. Chirurg. Trans.* *Hall on Diagnosis*.

HEMORRHAGE FROM THE ANUS. See *Hemorrhoids*.

HEMORRHAGE FROM THE LUNGS. *Hæmotysis*. (Spitting of blood.)

Symptoms. Sense of weight and oppression at the chest; dry, hard, tickling cough, difficulty in breathing,

pain at the sternum, sometimes shiverings, hard jerking pulse, flushed countenance, saltish taste in the mouth; followed by a discharge of blood from the lungs, of a bright florid colour, sometimes in large quantities. As the disease advances, the blood becomes dark and coagulated, from having remained in the lungs some time after being effused from the vessels. It rarely proves fatal until after several repetitions, but it very often induces phthisis pulmonalis.

Causes. Besides those enumerated under hemorrhage, we may add, the period of life from sixteen to twenty-five, speaking loud, singing, and blowing wind-instruments, wounds of the thorax, severe coughs, want of pressure in the atmosphere in ascending mountains, malformation of the chest, phthisical tendency. *Diagnosis.* From hæmatemesis, by the blood in the latter being vomited, and being of a dark grumous colour mixed with the aliment last taken. Occurring in pneumonia, if moderate, it often proves critical, and should not be checked, but in advanced febrile diseases it is passive, highly dangerous, and requires the most potent antiseptics.

Treatment. If the hemorrhage be very profuse, cold water should be applied to the lower extremities and genitals, a table-spoonful of common salt, as advised by Dr. Rush, taken occasionally. Bleeding, and the general treatment of hemorrhage is then to be promptly enforced. The cough to be appeased with some mild pectoral with the addition of opium after the pulse is reduced. The chest may be also blistered. Should the hemorrhage become passive, the treatment must be varied accordingly.

HEMORRHAGE FROM THE NOSE. *Epistaxis.* Sometimes comes on suddenly, and others preceded by sense of weight and obtuse pain in the head, vertigo, tinnitus aurium, flush in the face, heat and itching in the nostrils, throb of the temporal arteries, and quickness of the pulse. In some cases, there are rigors, coldness of the feet and costiveness.

Causes. Young, sanguine and plethoric habit; weakness of the vessels of the part, menstrual obstruction. *Exciting causes.* Great heat, violent exertion, blows, falls, stooping posture. Generally it is not dangerous in young persons, and should not be stopped, unless very profuse; in old persons it is more dangerous, and often indicates a tendency to apoplexy: in inflammatory fever, headach, and apoplexy, it proves critical, but in advanced stages of other diseases may be considered passive, and must be speedily checked.

Treatment. Besides the general treatment of hemorrhage, we may immerse the whole head in a pail of water rendered colder by the addition of common salt; direct the patient to snuff vinegar and other styptics up his nostrils, and plug up the nose with dossils of lint, impregnated with the same. Should, after this, the blood flow down the throat, it will be necessary to plug up the fauces also. This is effected by passing a bougie through, from the nostril on the affected side, the fauces, bending it and bringing its end out at the mouth; a piece of string, to the end of which is attached a dossil of lint, is to be tied to the end of the bougie, the bougie is next to be drawn out of the nose, until the lint is brought tight against the fauces; the string which has now arrived at the nostril is to be separated from the bougie and secured there, by tying it to a small piece of the bougie or any other contrivance. The nostril is then to be plugged up also. Effectual pressure may be made in the nose, by passing a piece of hog's gut, tied at its upper end, while the lower is injected with some cold fluid, the whole to be pressed up, and properly secured by bandage. Blisters to the neck are a good auxiliary.

HEMORRHAGE FROM THE STOMACH. *Hæmatemesis.* A discharge from the stomach, by vomiting, of dark coloured, grumous blood, in large quantities, mixed with alimentary matter; preceded by a sense of weight, and obtuse pain in the stomach. It is known from hæmoptysis, by the absence of cough, and the florid colour of the blood discharged.

Causes. Besides those detailed under hemorrhage, we may add, irritating articles taken into the stomach, blows and wounds of the organ, and visceral obstructions in particular.

Treatment. The general principles laid down under hemorrhage are here applicable. Frequent doses of castor-oil, are also proper, to remove from the bowels such blood as may have passed the pylorus. Styptics can be applied to the vessels themselves. For this purpose, the tincture of muriated iron is highly recommended by Dr. Thomas. Blisters to the region of the stomach are also proper.

HEMORRHAGE WITH THE URINE. *Hæmaturia.*

Symptoms. Pain and difficulty in evacuating the urine, which is mixed with blood. If the hemorrhage proceed from the kidneys, the pain and heat will be most felt in the back; if from the bladder, the pain and heat is situated at the bottom of the belly. It is distinguished from the high coloured urine of different diseases, by the depo-

sit of coagulum at the bottom of the vessel, and by its staining the linen of a red colour. Although for the most part symptomatic, it is always more or less dangerous, particularly when attended with a discharge of pus.

Causes. Blows across the loins, riding on horseback, irregularly shaped calculi, and other causes mentioned under hemorrhage.

Treatment. Besides adopting the general treatment of hemorrhage, we may exhibit the mucilaginous drinks, as barley-water, flaxseed-tea, solutions of acacia-gum; also uva ursi when the discharge is purulent.

If the disease be produced by stone in the kidney, urter, or bladder, besides the same treatment we should, as soon as the inflammatory symptoms are subdued, resort to the proper remedies for that affection. See *Gravel*. Clysters of an emollient and anodyne kind are also proper. Blisters are improper.

HEMORRHAGE FROM THE WOMB. *Menorrhagia.* (*Immoderate flow of the Menses.*) This is said to exist when the menses return more frequently, continue longer, or are more abundant than what is natural or customary with the patient when in health. The active and passive forms are very distinct in this disease.

Symptoms. Pains in the loins and belly, not resembling labour, headach, giddiness, dyspnoea and febrile symptoms: but, when passive, there is general debility and laxity of the uterus, and no fever; indigestion; hemorrhœa.

Causes. Besides those enumerated under hemorrhage, we may particularize dancing, blows on the belly, passions, costiveness, excess in venery particularly during menstruation; debility of the womb from frequent childbirth, or abortions; debility of the system from sedentary habits, inhabiting warm chambers, abuse of tepid liquids: organic affections, as scirrhus, polypous ulceration. Frequent repetitions induce a train of diseases, which in the end prove fatal.

Treatment. The form of the disease must be constantly kept in view, and the general principles for the treatment of hemorrhage respectively adopted; besides which the patient should be kept in a recumbent posture with the pelvis elevated, the vagina plugged up with cloths dipped in vinegar or other styptic: styptics also to be often injected into the vagina and uterus; opium to relieve pain. The same treatment will be proper in profuse menstruation at the period of cessation. Cases arising from organic

disease are incurable, and require the palliative remedies recommended for those affections.

HÆMORRHOIS, OR PILES. These are troublesome swellings situated near the anus, and consist of elongated and enlarged hemorrhoidal veins, though Richter and Abernethy are of opinion, that, in a majority of cases, the tumor is formed by effusion of blood under the lining of the rectum. They often bleed freely, when they are called *open or bleeding piles*; but when not attended with such discharge, they are called *blind piles*. They are also denominated inward or outward piles, as they are situated within or without the rectum.

Symptoms. Sense of weight in the loins and belly, pain, flatulence, heat, itching at the anus, &c. After straining at stool, a swelling suddenly comes down and is confined by the sphincter, giving extreme pain and uneasiness. In this state it continues until it bursts, when there is a copious flow of blood for some time, which gives the patient relief, and he recovers.

Causes. Costiveness, plethora, hard riding, pregnancy, suppression of customary discharges.

Treatment. During the pain and swelling, bleeding from the anus, leeches and cold washes to the part, laxatives, and the antiphlogistic regimen; nitre and other sedatives, sudorifics, &c. The tumor may be often reduced by means of gentle pressure made with the fingers. If inward piles are bleeding very freely, they can be speedily checked by passing up a piece of hog's gut, and injecting into it iced water or other very cold fluid frequently, retaining it with a proper bandage. The balsam copaibæ is very efficacious in relieving pain in cases of piles. Ointments containing nut-galls, lead, and opium form good local applications. But oftentimes piles become so troublesome that their removal is necessary. In doing this, the most painful should be selected and first removed, which will often afford relief to all the rest. If the piles be situated within the rectum, some recommend the ligature applied by means of the double canula, but, if situated without, the knife is unquestionably preferable. The hemorrhage following is not to be dreaded. Some direct the patient to sit over a vessel of warm water, and then strain until all the tumours are expelled, and then with the knife cut all away. I have tried with success the plan of applying a very tight ligature and removing it shortly afterwards, trusting to inflammation and adhesion of the coats as recommended by Dr. Copeland. Persons liable to piles ought to avoid all exciting causes, keep the bowels free with laxatives, and occasionally pass a large bougie up the

rectum. Fistula, prolapsus ani, and stricture of the rectum is apt to be complicated with piles. In pregnant women, piles and costiveness are common, owing to the pressure made upon the rectum by the uterus. The patient should take frequent doses of opening medicine which should not contain aloes; applying leeches and saturnine lotions. See those diseases. Consult Ritcher, Ware, and Abernethy.

HENBANE. *Hyoscyamus*. The plant. Anodyne, sedative; an excellent substitute for opium. *Extractum Hyoscyami*, dose to be gradually increased from half a grain. *Tinctura Hyoscyami*, ℞ xx. to f. ʒj.

HEPATITIS. See *Inflammation of the Liver*.

HERNIA. This term implies a tumor caused by the displacement of some part of the abdominal viscera from its natural cavity. The most frequent, are those formed by the moveable viscera as the omentum, intestines, and stomach, though the liver, bladder, &c. are occasionally liable to hernia. When intestine alone is contained in the hernia, it is termed *enterocele*; when omentum, *epiplocele*; when both, *entero-epiplocele*; when the stomach, *gastrocele*; the liver, *hepatocele*; the bladder, *cystocele*, &c. Other terms are used to denote the situation of the tumor; ---thus when the hernia passes through the abdominal ring into the groin, it is called *bubonocoele* or *inguinal hernia*, and is the most common of all in the male sex; when into the scrotum or labia pudendi of females, it is termed *oscheocoele*; when below Poupart's ligament, *crural* or *femoral hernia*, and is most frequent in females; when at the navel, *umbilical hernia* or *exomphalos*; when at the foramen ovale, in the vagina, perineum, or at the ischiatic notch, it is called hernia of these parts respectively.

There is a particular kind of hernia called *congenital*, which exists from the period of birth. It is produced by a piece of omentum or intestine following the testicle from the abdomen into the tunica vaginalis, before the natural obliteration has taken place between the two cavities. The protruded portion lies within the tunica vaginalis, and has no sac but the tunica. The common scrotal hernia has a distinct sac and lies without the tunica vaginalis. Mr. Hey has discovered a new species of congenital hernia which he calls *infantile*, as it can only occur while the parts retain their peculiarity during infancy. This case differs from either of the two just explained, by being situated within the tunica vaginalis, and having a distinct peritoneal sac of its own. The abdominal viscera protruding through the diaphragm form phrenic hernia. The intestines are also liable to strangulation within the abdo-

men by being confined in apertures of the omentum, mesentery, mesocolon, by adhesions. When a hernia protrudes at any part of the abdomen, not above mentioned, it is called ventral hernia. A hernia is commonly included in a membranous pouch or sac, formed of the peritoneum, which the hernia pushes before it, in its descent from the abdomen. It is thin in recent cases, and the reverse in old cases. It is sometimes burst, when the tumor receives a blow, its contents will then be under the integuments.

In *epiplocele* the tumor is of a doughy softness, inelastic, flabby and unequal, and, when there is no stricture, perfectly indolent. It is more weighty and compressive than *enterocele*. In *enterocele* there is more tenseness and elasticity, and the reduction of it is attended with a gurgling noise.

Hernia exists in different states, 1st. the *reducible* or *unincarcerated*, when the contents of the sac can be easily returned into the abdomen; 2d. *irreducible*, or when adhesion of the protruded *viscera*, to the surrounding sac, prevents reduction, but the contents are not strangulated; 3d. *simple obstruction* from feces and air accumulating in the protruded bowels, without constriction or inflammation, called by the French *engouement*, and is most common in old and large hernia; 4th. *strangulated*, when the parts are confined and suffer violent inflammation. This last is very dangerous.

Causes of hernia. Running, lifting, jumping, punctured wounds, blows, kicks, &c. upon the abdomen, hard labours, in short, any exercise or exertion which throws the abdominal muscles into violent contraction, by which means the *viscera* are compressed, and some portion of them forced out at the rings or other weakly-fortified parts of the cavity; also preternatural weakness of those parts.

Of Unincarcerated, Reducible, or Common Hernia. Symptoms. Sudden tumour from some of the above causes, appearing at one of those parts of the abdomen above described; no fever, inflammation, or much pain; the swelling dilates on coughing, disappears if the patient lies down, or can be easily pressed up with the fingers, recurs as soon as the erect posture be resumed, continues to increase in size, unless confined by a truss.

Treatment. Reduce the hernia, apply a truss that will make general and equal pressure upon the aperture whence the tumor appears. In young subjects, the opening, after wearing the truss a year, may become obliterated, and the truss be laid aside; but in old persons it is

dangerous to leave off the truss at any time. The patient should be careful of his diet and avoid exciting causes.

Of Irreducible Hernia. Many old cases are in this situation, the consequence of adhesions between the intestine and omentum, or the sac. There is always more or less danger in such cases, either from inflammation and stricture of the parts; from accumulations of feces in the protruded gut; (engouement) the descent of other portions of gut which would probably be immediately strangulated; external injuries, &c. Persons so afflicted should wear a suspensory bag, avoid every kind of excess, costiveness, &c. If omentum only be down, it is less dangerous than when intestine forms a part of the tumor. They frequently grow to a very large size.

Hernia with Obstruction but not Strangulation. (*Engouement.*) This is an accumulation of fecal matter and air in the hernia, occurring mostly in old persons, when the peristaltic motion of the bowels is weak and unable to force on the feces perpendicularly through the returning portion of the protruded intestine, hence there is obstruction in the bowels above. This case is particularly liable to take place from plum-stones, cherry-stones getting into the ruptured intestine, or any hard substance which the patient may have improperly indulged in. The tumor increases, but is not elastic and painful as in strangulated hernia, for there is no stricture. But if the symptoms go on increasing, pain, soreness, and tension will arise, together with sickness and vomiting, insomuch that the operation may be ultimately necessary. This form of the disease may exist many days without danger.

Treatment. Bleeding does not appear particularly indicated. The tone of the part should be invigorated by the application of spirituous washes, cold water, pounded ice, &c.; the peristaltic motion excited by purges, laxatives, clysters, and frequent attempts made by means of the taxis to effect a reduction of the part. Should these remedies be unavailing and inflammation with other symptoms of strangulation appear, the operation must be resorted to without delay.

Of Incarcerated or Strangulated Hernia. Symptoms. Pain, soreness, tension, elasticity of the hernial tumor which soon extend over the whole abdomen, attended with anxiety, restlessness, sickness and vomiting frequently of bilious or feculent matter, and obstinate costiveness. If the gut be not speedily released, all those symptoms increase to a violent degree, indicating the most vehement inflammation. At length, after much sufferance, the pain

suddenly abates and there is a general remission of all the symptoms. These favorable appearances are soon interrupted by sinking of the countenance, coldness of the extremities, hiccough, prostration, together with a crepitus on pressing the tumor, all indicating that mortification has taken place. Death soon closes the scene, and, in some instances, not 24 hours from the attack. The strangulation of a portion or diverticulum of the gut merely is capable of producing all the above symptoms. When the hernia consists of omentum there is less danger than if intestine is contained.

Treatment. The first step to be taken is a prompt and skilful application of the Taxis or reduction by manual effort. This is done by making a steady and gradually increased pressure on the tumour with one hand, in the proper direction, while with the fingers of the other, we attempt to reduce the hernia by small portions at a time. The abdominal muscles should at the same time be relaxed, by elevating the shoulders, and bending the thighs upon the pelvis. The effort should be continued twenty or thirty minutes, but without violence. If this fail, the patient is to be bled from a large orifice in order to produce syncope, when another attempt is to be made during the deliquium, and, should this also fail, if time will admit, the patient is to be put into a warm bath and the attempt made then. But if this cannot be speedily procured, we are to try the effect of ice or snow mixed with common salt and applied to the tumour, or purging mixtures of nitre or sal ammoniac, or evaporating lotions of ether, &c. together with the tobacco-enema, composed of half a drachm of the leaf infused ten minutes in half a pint of water, which is to be repeated in half an hour unless narcotic effects are produced by the first. A final attempt is now to be made at reduction, when, if we again fail, the operation must be immediately performed. No time is to be lost during the intervals of these remedies, as some cases prove fatal in 24 hours.

Of Bubonocoele or Inguinal Hernia. This is the most frequent of all hernia and is almost always confined to the male sex, and was formerly confounded with crural hernia.

The hernia first makes its exit from the abdominal cavity at an aperture about an inch and an half from the abdominal ring in a direction upward and outward towards the superior and anterior spinous process of the ilium. This aperture Mr. A. Cooper calls the internal ring, and the channel or space between it and the proper ring the inguinal canal. Having made its appearance at this outer

ring, it is found covered by the cremaster muscle, is anterior to the spermatic vessels, having the epigastric artery upon its inner side. When strangulated, the stricture may be at either of these rings or apertures, or at both. In attempting the reduction, then, the anatomy of the parts must be kept in view, making the pressure, if the hernia be above or has been made to re-pass the outer ring, at the pubes in a direction upward and outward towards the upper or inner ring: for the same reason the trusses should be made to press upon the inner ring. Sometimes the hernia protrudes immediately through the outer ring, when it is called *direct inguinal hernia*. When it descends into the scrotum, it is called *scrotal hernia*. In females, inguinal hernia follows the direction of the round ligament.

Diagnosis. Between inguinal and crural hernia the diagnosis is sometimes difficult; but in the former, it must be recollected that in males the tumour takes a direction towards the scrotum and in females towards the labia pudenda which is not the case in the latter. In crural hernia the tumour winds up over the crural arch, when if it be pressed downwards and backwards, the arch will be found running distinctly over the neck of the sac; while in inguinal hernia it runs under that part. It must be always remembered that inguinal is almost peculiar to males and crural to females.

The hernial symptoms of dilatability upon coughing and reduction of the tumour when in the recumbent posture, particularly if assisted by pressure, together with the symptoms peculiar to hydrocele, hernia humoralis, circocele, &c. will be sufficient to distinguish a rupture from those diseases.

Of Crural or Femoral Hernia. This is almost peculiar to the married female. The tumour appears just below Poupart's ligament, on the inside of the femoral vein, in front of the pectineus muscle and outside of the fascia lata. It sometimes comes down in the sheath containing the crural vessels. After emerging from under Poupart's ligament or the crural arch it extends upwards over the said arch; therefore in attempting reduction, pressure must be made downwards and backwards, until the tumour is brought under the arch, when the pressure is to be upwards towards the navel. When strangulated, the stricture is caused by a broad thin sharp ligament, given off from Poupart's when it reaches the pubes, called ligament of Gimbernat, who first described it. Mr. Lawrence has since very accurately illustrated it. This kind of hernia is more firmly confined, the symptoms are more rapid and violent, and the case of course more dangerous, consequently more

promptitude is necessary in the treatment, which differs not from that recommended in bubonocoele.

Of Congenital Hernia. This is peculiar to children. In these cases the intestine or omentum follows the track of the testicle from the abdomen to the scrotum, before the passage has time to close up, it consequently lies in the cavity of the tunica vaginalis. Scrotal hernia arising in children is mostly congenital, this indeed is its principal diagnostic.

The treatment, as well as in that species mentioned by Mr. Hey is nearly the same as in bubonocoele.

Of Hernia of the Bladder or Cystocoele. This makes its appearance at the abdominal ring. The inferior and anterior portion of the bladder insinuates itself, and detaches the peritoneum lining the ring, and the bladder itself being unprovided with peritoneum at that part, this kind of hernia is without a sac. But as the superior part of the organ begins to be protruded, it drags down the peritoneum which is attached to that part of the bladder by which a sort of pouch of this membrane is formed, into which omentum or intestine falls: hence cystocoele complicated with those parts. The subsidence of the tumour upon voiding the urine and the facility afforded to its evacuation by pressure distinguish this kind of rupture from others. Reduction, truss and bandage are all that are required. Calculi have occasionally been protruded in the bladder.

Of Umbilical Hernia or Exomphalos. The viscera protrude either through the navel or through a separation of the fibres of the linea alba adjacent. It is most common in children; pregnant, fat, and dropsical women. From the largeness of the aperture it is less liable to be strangulated than other species of rupture. Hence it is important to distinguish, from strangulation, sickness, pain, colic and other disorders of that kind and which are very frequent in these cases. It sometimes grows to an immense size; the omentum, intestine, stomach, &c. being protruded and glued by adhesions into one mass. This hernia, when practicable, should be reduced and confined with a truss, and that recommended by Mr. Hey should have the preference. Desault effected upon very young children a radical cure with much success by reducing the whole contents of the sac and then removing the sac and integuments by means of ligature. The remedies before mentioned will equally apply here in case of strangulation, and, in default of these, the operation must be performed.

The vaginal and perineal hernia may be confined with a pessary, other hernia by trusses and bandages adapted to

the parts. We can only surmise Phrenic hernia when symptoms of strangulation exist without external rupture: It is beyond surgical art. Consult *Pott, Scarpa, Desault, A. Cooper, Lawrence, &c. &c.*

Of Encephatocèle, Fungus or Hernia Cerebri. A hernia or protrusion of a part of the brain with its membranes constitutes this disease. It sometimes appears in young children when the fontanelles or sutures are unusually disunited. It appears as a soft, smooth and round tumour covered by the scalp without discolouration, pulsating, and capable of reduction by pressure. It requires a gentle compress of sheet-lead, and bandages secured to the cap.

Another species exhibits a surprising degree of malformation, in which portions of the cranium are deficient; such children are generally still born. But the most common is that which follows the loss of a portion of bone either by exfoliation, or the operation of the trephine. It makes its appearance in a few days after the operation by ulcerating through the dura mater; it grows to the size of a pigeon's egg, attended with inflammation of the pia mater, frequent hemorrhage, discharge of turbid fluid, a dark colour of the surface of the tumour, from coagulated blood, and for the most part coma, insensibility, &c. Mr. Abernethy is of opinion, that the disease is produced by an injury, inflicted on any part of the head, giving rise to a state of the vessels resembling apoplexy, which subsequently become ruptured, and which would produce all the bad effects of effusion into the brain did not the existing aperture in the cranium allow the *viscus* to expose itself, and with its membranes protrude through such opening. The treatment of this species, as the rupture of the dura mater, usually relieves all urgent symptoms, and should consist of mild dressings, and the tumour will often fall off in sloughing masses. If upon an increase of the growth of the tumour bad symptoms occur, relief will be obtained by cutting away more of the bone. Mr. Hill and others have successfully pared off these tumours with the knife. To suppress a profuse hemorrhage it has been recommended to cut away the tumour and expose the internal bleeding vessels to the styptic powers of the atmosphere. The common styptics would be improper. Cases are mentioned where a pulsating tumour protrudes through the cranium without injury or loss of bone, carrying before it a distinct covering of dura mater. This is truly a hernia of the brain. Consult *C. Bell's Oper. Surg. Hill's Cases. Abernethy on Injuries of the Head.*

HERNIA HUMERALIS. See *Testicle, Diseases of.*

HERPES. See *Tatters*.

HICCOUGH. *Singultus*. This disease is either *idiopathic* or *symptomatic*. It is a spasmodic affection of the stomach and diaphragm, and caused, in the *idiopathic*, by the irritation of acid or crudities in the stomach. This form is not dangerous, and is easily removed by a draught or two of cold water, a tea spoonful of vinegar or lemon-juice, or any sudden fear or surprise. If these fail, recourse must be had to antispasmodics, as ether, musk, opium, stimulants, and blisters to the stomach. But the *symptomatic* occurs in the advanced stages of fever, in injuries of the viscera, or mortification, and denotes a fatal termination. In such cases we may give stimulants, and antiseptics. It is sometimes a symptom of hysteria.

HICCOUGH IN INFANTS, mostly arises from acidity and offending matter in the stomach. It is to be removed by a little magnesia or prepared chalk, preventing its return by a gentle emetic. If these means are unsuccessful, we may give gentle cordials and antispasmodics, as ether, peppermint, opiated tincture of camphor, &c., also liniments rubbed over the region of the stomach. A small quantity of vinegar will often relieve the spasm.

HIP-DISEASE. See *Joints, Diseases of*.

HOGS LARD. See *Lard*.

HONEY. *Mel*. Laxative, expectorant; useful in gargles, and as a detergent to sores. *Mel despumatum*, same. *Mel scillæ acetatum*, aperient, expectorant, f. ℥j. to iij. *Mel scillæ compositum*, same.

HOODED WILLOW. See *Scull-cap*.

HOP. *Humulus*. The strobiles. *Tinctura humuli*, narcotic, tonic, ℥ xv. to xxx.

HOOPING COUGH. See *Cough, Hooping*.

HORDEOLUM. See *Eye*.

HOREHOUND, WILD. *Eupatorium teucrifolium*. The herb. An indigenous substitute for *Cinchona infusum eupatorii*, f. ℥ij. to iv. every hour or two in intermittent.

HORSE-RADISH, *Armoracia*. The plant, stimulant, diuretic, ℥j. to ℥j. *Infusum armoraciæ*, f. ℥j. to iv.

HYDARTHROS. *The White Swelling*. See *Joints, Diseases of*.

HYDATIDS. The hydatid is now ascertained to be a living animal. It seems to consist of membranous bags, having distinct muscular action, the coat so thin as to be transparent. They are sometimes found on the surface of the liver, and are present in most encysted dropsies, and probably give rise to them.

HYDROCELE, or *Dropsy of the Testicle*. There are three species of this disease. 1st, when the fluid is collected in the cellulos texture of the scrotum; 2d, when in the cavity of the tunica vaginalis; 3d, when in the spermatic cord. The first is *anasarca* or *œdema*, which see. The others are purely local, and commonly confined to one side of the scrotum.

Of the 2nd Species. Symptoms. A colourless, smooth, pyriform, elastic, transparent tumour, gradually extending itself from the lower part of the scrotum upwards; it cannot be diminished or emptied into the abdomen by pressure. As it increases, it becomes more oblong, hard, and ponderous. If the fluid be clear, by placing a candle behind the tumour, the transparency will be obvious. The testicle is just distinguishable at the upper and back part of the swelling. The integuments are thickened, and the veins upon the scrotum enlarged. The cord is generally obvious.

Causes. Blows, hard riding, and other injuries, irritability of the urethra. *Diagnosis.* This is to be made by a close attention to the symptoms. In a few cases, however, the vaginal coat may become thickened and even cartilaginous, and may present the appearance of *Sarcocele*. The transparency of the fluid is sometimes destroyed from extravasated blood. In cases of much doubt, it may be well to explore the contents of the tumour by making a very small puncture with a needle.

Treatment. This is either *palliative* or *radical*. The palliative consists in puncturing the tumour with a lancet or small trochar and canula, and evacuating the fluid. The latter is the preferable instrument, but the former may be first used to make a small division of the integuments, as practised by Sir Astley Cooper. The palliative treatment should always be employed in large and old cases, as the radical might, in such, produce too much inflammation. As the testicle is situated at the upper and posterior part of the tumour, the puncture should be made at the anterior and inferior part, for thence the trochar may be carried upwards and backwards without injury. In children, the testicle is situated near the bottom of the scrotum, the puncture should be higher up, and be carried more perpendicularly upward. If the tumour should appear to take an oblique direction, as it occasionally does, the direction of the trochar must be varied accordingly. In those few cases, when both sides of the tunic are diseased, the operation should be performed on one side first. A piece of plaster and a bag-truss is all that is necessary after the operation.

The radical treatment consists in evacuating the fluid as before described, and afterwards exciting such a degree of inflammation in the parietes of the tunica vaginalis as to cause a perfect adhesion, thereby totally obliterating the cavity. This is effected by seton, caustic, distending the cavity with some extraneous substance, &c. But the most eligible mode, and what is generally adopted in modern surgery, is injecting some stimulating liquid. Having drawn off all the fluid, a composition consisting of two parts of red wine and one of water is to be thrown in, through the canula by means of an elastic bottle, and there retained about five minutes, when it is to be evacuated. A solution of zinc is sometimes used. Care must be taken that none of the fluid be injected into the cellular membrane, as it would produce a dangerous sloughing. Local inflammation, if severe, is to be combated by cold lotions, purges, &c. A plaster and suspensory bandage is in all cases proper. The profession is indebted to Sir James Earle for the perfection of this part of surgery.

It does occasionally happen, that a communication, in young persons, exists between the cavities of the tunica vaginalis and the peritoneum, called congenital hydrocele, and which may be complicated with hernia. In such cases, the hernia must be reduced, the radical cure for hydrocele effected, taking care that none of the fluid injected enters the abdomen, and then applying a truss.

Of the 3rd Species. Of this there are two varieties. In one, the fluid is confined to the cellular membrane of the cord, in the other, it is collected in one or more cavities within the sheath of the cord; the first called *hydrocele of the spermatic cord*, the latter *incysted hydrocele of the cord*. The first seldom produces any inconvenience, and requires only a suspensory bandage. If, however, it grows large, it may produce deformity, and is liable to be mistaken for an adherent omental hernia or varix of the cord; the origin of the complaint, the want of dilatation upon coughing, &c will however distinguish it. It is elastic, broader at the bottom than the top, the testicle is lower on that side, and there is a slight pain in the loins. It is to be radically cured by making an incision into the whole length of the tumour. The second variety occupies the middle part of the cord, the testicle and the groin being distinct and above it; it is very tense and elastic, circumscribed, and without pain. It does not dilate upon coughing, neither are the bowels affected as in hernia. It cannot be confounded with the second species, as in that case the swelling always begins from the bottom. Infants are particularly subject to it, and in them, it may be removed by laxatives, fomenta-

tions, &c. In adults it may sometimes be proper to puncture it, and inject the red wine and water. Consult *Pott, B. Bell, Sir James Earle on Hydrocele.*

HYDROCEPHALUS. See *Dropsy of the Head.*

HYDROPS. See *Dropsy.*

HYDROPHOBIA. See *Poisons.*

HYDROPTHALMIA. See *Dropsy of the Eye.*

HYDROSARCOCELE. See *Testicle.*

HYDROTHORAX. See *Dropsy of the Chest.*

HYMEN, *Imperforate.* See *Vagina Imperforate.*

HYPOCHONDRIASIS. The hypochondriac suffers all the symptoms of dyspepsia, is a prey to the most gloomy forebodings, imagines himself suffering all sorts of diseases. Hypochondria often follows bodily pain. No people present more fear of dying, and desire of freedom from resent evils than hypochondriacs. They talk much of disgust of life, of a desire of suicide, and of death, ask it of people; attempt suicide, rarely with courage enough, defer or abandon it from slightest motives or pretext, to gratify their real or supposed foes, to clear themselves from fancied reproach; from regard for friends and religion. Hypochondria and hysteria often degenerate into insanity and, in many cases, are its first degree. Besides the treatment for dyspepsia, the mind is to be amused and diverted from its imaginary evils. Long journeys, cheerful company, change of climate, &c. are often very useful.

HYSTERIA, or the *Hysteric Disease.* This disease comes on in paroxysms, sometimes preceded by dejection of spirit, anxiety, effusion of tears, palpitations, copious flow of limpid urine; frequently there is a pain in the left side, at the flexure of the colon, with a sense of distention advancing upward to the stomach and thence to the throat, giving the sensation of a ball lodged there, called *globus hystericus*: the patient now appears threatened with suffocation, is faint, and affected with stupor and insensibility, while the body and limbs are violently agitated, the hands clinched, with alternate fits of crying, laughing and screaming, incoherent utterance, frothing at the mouth, delirium. The spasm at length abates, a quantity of wind is evacuated upwards, and with frequent sobbing and sighing, the patient recovers, remembers the fit, feeling pain in the head, and soreness over her body. In some cases, there are no convulsive motions, but the patient lies without sense or motion. Hiccough is a frequent symptom. Hysteria is peculiar to the female sex, particularly the unmarried, occurs from the age of puberty to 35 years; it is more especially troublesome at the period of

menstruation. Delicate persons of the male sex occasionally are liable.

Causes. Irritability of the nervous system, sedentary life, anxiety, excessive evacuations, suppression of menses, lochia, or other usual discharges, proclivity to venery, violent motions, flatulent and acescent regimen, constitutional debility, irritation or sympathy, turgescence of the uterine system. *Diagnosis.* From hypochondriasis, by its coming on in paroxysms; from common syncope, by presence of the pulse and unaltered state of the countenance; from apoplexy, by the absence of stertor; from epilepsy by the flow of limpid urine, globus hystericus, laughing, crying, &c. The disease is not immediately dangerous, but may terminate in epilepsy or mania.

Treatment. The indications are, 1st, to allay the spasmodic symptoms; 2d. to strengthen the system during the intermissions. The first is fulfilled by bleeding, if the patient be young and plethoric, and the case recent; by stimuli applied to the nostrils, as the preparations of ammonia, assafoetida, burnt linen and feathers; by applying ether to the temples, by pediluvium, dashing cold water over the extremities, clysters, either laxative, or composed of assafoetida, opium or cold water; by antispasmodics, as ether, castor, valerian, &c. The *second* is fulfilled by cleansing the primæ viæ, by tonics, as cinchona, bitters, chalybeates, cold bathing, mineral waters, light and nutritive diet. Cramps and other anomalous affections to be relieved by opium and such medicines as seem indicated. The functions of the uterus should be duly attended to, and marriage is sometimes found highly beneficial. Consult *Hamilton on Purgative Medicines.* *Wilson on Hysteria,* &c. *Abernethy's Surg. Obs.* *Hall on Diagnosis.*

HYSTERIA IN PREGNANT WOMEN. Horizontal posture. free exposure to cool air, a little water, with a small quantity of wine or a few drops of hartshorn may be poured down the throat. Plethora or costiveness to be removed by bleeding and laxatives. Remove exciting causes.

HYSTERITIS. See *Inflammation of the Womb.*

ICELAND MOSS. *Lichen.* Nutritious, soothing, pectoral. Decoctum lichenis, f. ʒ ij. to iv.

ICTERUS. See *Jaundice.*

ILIAC PASSION. See *Colic.*

IMPETIGO. See *Ring-worm.*

IMPOTENCE. *Anaphrodisia.* This disease may arise from original defect in the organs of generation, but more frequently from topical weakness, brought on by excess in venery or onanism, or from great debility in the sys-

tem, produced by severe evacuations, preceding diseases, want of nutritive food. In some few cases it depends upon a degree of agitation or fear, at the time of coition. In its treatment, if it arises from defective organization, the disease is incurable; if from general and topical weakness, we are to administer tonics, nutritious diet, wine, cold bathing, general and topical stimulants, as tincture of cantharides, in small doses.

INCONTINENCE of *Semen and Urine*. See *Semen, and Urine*.

INCUBUS. See *Night Mare*.

INDIGESTION. *Dyspepsia*. Although this disease may be most likely to occur between thirty and forty years of age, yet upon this continent it is prevalent at all ages, and in both sexes after puberty. It may continue a great length of time without producing any dangerous symptoms, and yet be sufficient to render the patient's life uncomfortable.

Symptoms. The following are some of the principal. Loss of or depraved appetite, flatulence, acid eructations, heart-burn, debility, oppression at the stomach after eating, costiveness, sometimes diarrhoea, pain, and sense of trembling at the stomach, small pulse, tongue white, extremities cold, sallow countenance, depraved vision, (*muscae volitantes*,) pain in the head, dry skin, disturbed sleep and sometimes hectic fever. Sometimes the mind is irritable, with much anxiety, frightful dreams, and palpitations. It is often complicated with night-mare, gastrodynia, cardialgia and pyrosis. The disease at length often becomes fatal, preceded by hectic fever, swelling of the feet, scirrhus of the liver, spleen and pylorus, dropsy, &c. particularly in hard drinkers.

Causes. Grief, intense study, indolence, profuse evacuations, excess in venery, intemperance, abuse of warm diluent liquids, as tea, &c.; also tobacco, opium, repletion, defective functions of the liver, spleen, stomach, &c.; living in cellars, &c. where there is moisture and cold. A morbid fulness of the vessels of the villous coat of the stomach. (*Dr. Parry*.) A morbid state of the gastric juice, debility or loss of tone of the stomach.

Treatment. These indications must be observed, 1st, to avoid or remove the causes detailed, by pointing out to the patient the necessity of abandoning any habits which may have induced the disease, the necessity for him to live a cautious and regular life, taking only such food as he finds by experience best suited to the powers of his digestion, and studiously avoiding whatever oppresses or disagrees with his stomach. 2d, to obviate symptoms, which tend to

perpetuate or increase the disease; by cleansing the stomach and bowels, by correcting acidity with alkalies and absorbents, as magnesia, lime-water, chalk, potass; by allaying pain and flatulence with carminatives, antispasmodics and opiates; by preventing costiveness by means of gentle laxatives joined with aromatics, as aloes and myrrh, confection of senna, castor oil, or Epsom salts, with peppermint, and particularly, a persevering habit of daily resorting to the vault and there soliciting a natural evacuation; by restoring the proper secretions, defective, (known by whitish, or clay-coloured feces and highly tinged urine) by the use of the submuriate of mercury, in small doses, or the blue pill; by assuaging the pain of gastrodynia with ether and opium, and the application of a blister. 3d, to restore the tone of the organ, by a diet of animal food, hard bread, jellies and the like, Madeira wine, brandy and water, soda, and mineral waters, avoiding esculents and malt liquors; by warm clothing, frictions, cold bath, change of climate, journies, &c. These may be assisted by the vegetable bitters joined with aromatics, as gentian, columbo, quassia, cinnamon, canella, cardamoms; also bark and myrrh and the mineral acids. To these may be added, the metallic tonics, as sulphate of iron and other chalybeates, sulphates of copper and zinc, and particularly the nitrate of silver; also the oxide of bismuth. The gastric juice of animals has been given with success. The use of the tepid bath at 96, or 98 daily, has in many cases, been found useful. It is of particular consequence that the dyspeptic person eat slowly, so that his food may be well masticated, and impregnated with a due portion of saliva. Consult *Pemberton on Dis. of Abdom. Viscera. Stone and Rees on Disorders of the Stomach. Parr's Med. Dict.*

INDURATION. A morbid hardness of any part.

INFANTS, Diseases of. See under their respective heads.

INFANTS, Black and livid colour. Sometimes immediately after birth, the face and neck of infants assume a black or livid colour, the breathing becomes short, &c. which gradually increases till it terminates in death. In other cases, the symptoms gradually go off. This affection is attributed to an imperfect closure of the foramen ovale, or to some malformation in the heart or lungs. Dr. Thomas says, that he knows of no remedy likely to obviate those appearances; but in his last edition mentions the stimulating bath employed by Dr. Hosack, consisting of cinchona bark and Jamaica spirits. See *New York edition 1821.*

Suffering the navel-string to bleed, employing the warm bath, frictions, and volatiles to the nose may be applied.

INFLAMMATION. There are few diseases in which inflammation is not in some way connected, its nature and principles therefore should be well understood. Inflammation is divided into *the acute*, or *common*, termed *phlegmonous*; and *chronic*, as exemplified in indolent tumours. It is also divided into *the acute*, or *healthy*, *common*, or *simple*; and *specific*, when complicated with specific disease, as venereal, small pox, erysipelas, scrophula, &c.

Of the acute, healthy, common, simple, or phlegmonous kind. This attacks every organized part of the body, particularly the cellular membrane and other highly vascular parts, but when it happens in tendons, fasciæ, &c. it produces violent, constitutional fever, from their want of vascularity, which renders the healthy inflammatory process slow, and difficult.

Symptoms. Heat, pain, throbbing, redness and circumscribed tumefaction of the part, soon followed by the sympathetic or symptomatic fever, differing in degree according to the extent and degree of inflammation and the nature of the part affected. (See *Fevers, Surgical.*) The heat and throbbing are caused by the increased action of the vessels of the part; the pain, by their dilatation; the redness, by the entrance of the red globules of the blood in vessels which are only destined to convey white blood; the swelling, by the increased actions of the vessels, and by an exudation of adhesive matter into the adjacent cellular membrane. It is remarkable, that all inflammations are most violent on the side nearest the surface of the body. If blood be drawn during inflammation, upon cooling it has a particular leather-like appearance on its surface, called its *buffy* or *inflammatory*, or *sizy coat*, and indicates, that the system required such an evacuation, and probably its repetition. This coat consists of coagulating lymph, while the red particles of the blood have sunk beneath. There are a few cases, however, where this appearance of the blood is not found. The blood drawn from pregnant women has this crust, generally.

Causes. External violence of any sort, as wounds, blows and the like. Also extravasation of urine, buras, the application of irritating substances; it may also arise without any assignable cause. The proximate cause is supposed to be an increased action of the vessels of the part. Mr. S. Cooper supposes, an increased sensibility of the nerves of the part, in conjunction with increased action of the vessels. The inflammation having proceeded to considerable

extent, and continued for some time, it comes to a crisis or termination. This termination may be in, 1st, *Resolution*, the most frequent and most favourable. It consists in a general abatement of pain, heat, and other symptoms, without any formation of pus, or injury of structure. 2d, *Suppuration*, which is the next most frequent and favourable, and consists of a formation of pus. 3d, *Ulceration*, or a removal or destruction of the parts by the process of absorption. 4th, *Mortification*, which is the least favourable, and least frequent; it consists in the death of the part. Scirrhus, too, or a hardness of part, having a liability to that disease, is regarded by some as a termination of inflammation.

Parts, just recovered from inflammation, are in a state of atony, and liable to relapse; chronic inflammation is also liable to take its place. It is therefore proper, the moment the acute form has abated, to apply to the part stimulants and astringents, to restore the tone of the vessels; and resolvents to promote the absorption of the effused lymph. When the inflammation terminates in suppuration or mortification, and continues in that state some time, exciting much irritation in the system, and inducing much debility, hectic fever arises, which is to be considered as the remote consequence of the injury. See *Fevers, Surgical*. But inflammation to a moderate degree as in cases of wounds, &c. is a healthy process, for it throws out an adhesive fluid, which agglutinates the parts together and repairs the injury. This is called *adhesive inflammation*, and should not be molested, unless existing in a violent degree. See *Union by the First Intention*.

Treatment. The indications to be observed are, 1st, to remove the causes which continue to operate; 2d, to reduce the action of the vascular system, by general bleeding from a large orifice, so as to produce fainting, and, if performed in a warm bath, the effect will be greater; by emetics, clysters, and purgatives of mild neutral salts, avoiding drastics, as they produce too much irritation in the system; by antimonials in nauseating doses, and other diaphoretics assisted by pediluvium, warm bath; by sedatives internally, as nitre, digitalis, meadow saffron; by rigidly adopting the antiphlogistic regimen, enjoining rest, quietude, &c. 3d, to diminish the action and sensibility of the part inflamed, by topical bleeding with leeches, cupping glasses, and scarifications; by the application of cold sedative lotions, as vinegar and water, (or R. Plumb. acet. ℥ss. Acetum distil. ℥iv. Aqua R̄ij. M. with which the parts should be kept constantly wetted.) When these

applications fail, much relief is often obtained by the use of warm fomentations and poultices, particularly in ophthalmia and hernia humoralis, and should be applied thrice a day. Where the pain is very severe, and the patient has been long deprived of rest, we may administer opium; in such cases, the dose must be very large, as fifty drops of the tincture, or two grains of solid extract. When tendinous, ligamentous, or bony parts are suffering inflammation, the pulse is smaller, and quicker than when muscles or cellular membranes are so affected. This is the case in a remarkable degree when the intestines are inflamed; indeed, in such cases, the pulse is so much depressed, as to deter many from bleeding, when in fact the operation is most urgently demanded, and the pulse rises as soon as blood is drawn. Mr. Hunter says, that this is the case with all parts deriving their nerves from the great sympathetic. Consult *Van Swieten on Boerhaave. Cullen's First Lines of the Prac. of Physic. Hunter Inflam. Burns on do. S. Cooper's Surg. Dict.*

INFLAMMATION OF THE BRAIN. Phrenitis. The inflammation may be seated in the substances of the brain or its membranes. It is *primary*, or *idiopathic*, when existing independently of any other affection; or *symptomatic*, when attending fevers and other inflammatory affections. The first species is seldom seen but in very hot climates, and in persons exposed to the intense heat of the sun.

Symptoms. Violent pain in the neck and head, preceded by long continued watching, frightful dreams, loss of memory. As the disease increases, there is a peculiar wildness of the eyes, and inability to bear light; the countenance has a most ferocious appearance, there is also restlessness, deafness, throbbing of the carotid and temporal arteries, furious delirium, intolerance of all external stimuli, the tongue is dry, rough and dark-coloured, the face flushed, and the pulse small, quick, and hard.

Causes. The idiopathic species arises from whatever may tend to increase the circulation, and act as stimulus to the brain, as violent passions, fits, intense study, excess in exercise, venery or spirituous liquors, exposure to the sun, blows, falls on the head, concussion or fracture; suppression of any customary discharge, as issues, menses, hemorrhoids, the milk; want of rest, &c. **Diagnosis.** From mania, by the presence of fever, pain in the head, &c.: from low fevers, by the redness of the countenance, peculiarity of the eyes: from synocha and other fevers by delirium, being in the latter, consequent, and supervening upon the fever. **Prognosis.** Always unfavourable, often

fatal from the third to the seventh day. If prolonged from this period, it is apt to terminate in mania or idiotism, and, in children, by effusion into the ventricles. Grinding the teeth, suppression of urine, subsultus tendinum, convulsions, coma, &c. denote a fatal termination; but hemorrhage from the nose, lungs, or hemorrhoidal discharge, spontaneous diarrhœa, sleep, and abatement of the symptoms are favourable, and indicate that the inflammation will terminate in resolution. Matter is sometimes formed.

Treatment. The indications for the cure of inflammation in general are applicable in the present case. Early general and local bleeding, particularly by opening the jugulars and temporal arteries, and applying leeches to the scalp, and cupping glasses to the back of the neck, are highly essential. The head should be shaven, and surrounded with an ice-cap, or continually wetted with cold lotions, composed of acetate of lead, vinegar, and the muriate of ammonia, &c. also pounded ice and the freezing mixture. Blisters to the scalp, neck and legs. Pediluvium and semicupium. The room to be kept perfectly dark and still. Opium does not seem admissible; hyoscyamus, however, may be given in an advanced state of the disease. The hop-pillow may also be used. The *symptomatic* differs but little in the treatment, the primary affection being kept in view. Desault, in speaking of phrenitis arising from injuries of the head, describes two species, the phlegmonous and the bilious. See *Head, Injuries of*.

INFLAMMATION OF THE BLADDER. Cystitis. Symptoms. Pyrexia, acute pain, tension, swelling, and soreness upon pressure, of the urinary bladder; the urine is voided with difficulty and in small quantities, or totally suspended; tenesmus and vomiting.

Causes. Seldom primary; generally arising from inflammation in the neighbouring parts, suppression of urine, irritation of calculi, gonorrhœa, stricture.

Treatment. The two first indications for the cure of inflammation in general are here to be fulfilled. Warm fomentations to the abdomen and the warm bath, together with oleaginous purges; emollient clysters are proper. Blisters and nitre, from their action upon the urinary organs, are inadmissible. Opium is useful. When irritation has been a long time kept up in the bladder from the presence of stone, the existence of stricture, or disease in the prostate gland, a mucous and purulent discharge passes off, mixed with the urine, attended with a thickened, indurated or ulcerated state of the bladder. This is called *chronic inflammation of the bladder*. In its treatment, the

bowels are to be kept freely open with castor oil, &c. ; pain to be relieved by opium ; and warm water, or oil and water to be frequently injected into the bladder by means of Mr. Foot's vesicæ lotura, or through a common silver catheter, with a syringe. Tonics and astringents, as balsam copaibæ, turpentine, aqua potassæ, bark, uva ursi, &c. The exciting cause as stricture, calculus, &c. require the proper surgical treatment.

INFLAMMATION OF THE BRONCHIA. See *Inflammation of the Lungs*.

INFLAMMATION OF THE BREAST. See *Breast, Diseases of*.

INFLAMMATION OF THE DIAPHRAGM. See *Inflammation of the Lungs*.

INFLAMMATION OF THE EAR. *Otitis. Symptoms.* Pyrexia, violent pain and throbbing in the internal ear, extending over the whole head. The disease is sometimes so severe as to produce coma, delirium, and even death.

Causes. Application of cold.

Treatment. Upon the accession of this complaint, we are to endeavour to bring about a termination of the inflammation in resolution, by the application of leeches and blisters behind the ear, by purges, general bleeding and the antiphlogistic regimen. But should these remedies fail, and termination in suppuration be inevitable, we are to promote it by fomentation, poultices, and warm vapour conveyed into the meatus. After the abscess has bursted, the ear should be frequently syringed out with decoction of chamomile, solutions of castile soap or the like. Ulceration sometimes follows, when the bones of the ear are discharged, and the whole mechanism of the organ destroyed, producing incurable deafness.

The *Ear-ach* may continue many days without much inflammation, and is often relieved by filling the meatus with wool moistened with opium, ether. or warm oil, and warm water may be injected. A diseased tooth often gives origin to the ear-ach, which should of course be removed.

INFLAMMATION OF THE EYES. See *Ophthalmia*.

INFLAMMATION OF THE HEART. See *Inflammation of the Lungs*.

INFLAMMATION OF THE INTESTINES. *Enteritis.* Of this disease there are two species, 1st, *phlegmonous* ; 2d, *erysipelatous* ; the latter only arises in the advanced stages of other diseases, indicating that a fatal termination will shortly be the result.

Symptoms. Very acute pain, tension and soreness throughout the abdomen, particularly near the umbilicus ;

attended with vomiting of bilious, or dark fetid, and sometimes stercoraceous matter; thirst, heat, obstinate costiveness, eructations, great anxiety; quick, small, wiry pulse. Sometimes great tenesmus and black mucous discharges from the bowels. There is great prostration of strength, contractions of the bowels into hard swellings, &c. The inflammation at length terminates in *resolution*, known by passage of feces or some critical evacuation, gradual abatement of the pain, and other symptoms: or by *suppuration* or *ulceration*, known by abatement of the symptoms, by rigours and discharge of pus by stool; or gangrene, known by sudden relief from all pain, attended with a sinking of countenance, irregularity of the pulse, cold sweats, hiccough. Death follows.

Causes. Besides those enumerated under inflammation, we may add poisons, or any acrid substances taken into the stomach, indurated feces, acrid bile, spasmodic colic, intus-susception, strangulated hernia, cold applied to the feet or abdomen. *Diagnosis.* From colic, by the fever, soreness and tension; from gastritis, by the vomiting and the burning pain being much less severe. It is a very dangerous disease, and liable to relapse.

Treatment. The indications of cure for inflammation generally, are here applicable. The smallness of the pulse must not deter us from drawing blood, indeed it becomes fuller by such depletion, the operation should be performed while in the warm bath, from a large orifice, so as to produce fainting, and repeated every few hours until relief be obtained. Leeches, blisters, and warm fomentations to the abdomen are proper; also purgatives, laxative and tobacco clysters, after venesection; the patient should drink freely of mucilaginous drinks, and avoid all kind of crude aliment for some time after recovery. Some, instead of hot fomentations to the abdomen, give the preference to cold evaporating lotions, ice, &c. The purgatives should be mild, and not administered until the violence of the inflammation is in some degree abated; the same may be said of opium. Consult *Travers on Wounds of Intestines. Baillie's Morbid Anatomy.*

INFLAMMATION OF THE KIDNEYS. *Nephritis.* This disease is of two kinds, one arising from the general causes of inflammation, and occupying the membrane covering the substance of the kidney; the other arising from the irritation of calculi in its pelvis, and producing inflammation there. The latter is spoken of under *Gravel and Stone.*

Symptoms. Pyrexia, acute pain in the part on the affected side, extending down the ureter and attended with

much difficulty, and a frequent desire to void the urine; constipation, the pain increased by attempting to walk, sit upright, stand erect, or lying on the affected side; together with nausea and vomiting. *Causes.* Strains, blows, falls, &c. received on the part, exposure to cold, riding on horseback, &c. *Diagnosis.* The difficulty in micturition, pain and numbness of the thigh, and retraction of the testicle, denotes this from other diseases. It terminates for the most part in resolution or suppuration; when protracted beyond the seventh day the latter will generally take place. It may also terminate in gangrene or scirrhus.

Treatment. The indications for the cure of inflammation in general must be here fulfilled; the patient to take oleaginous cathartics and drink mucilaginous liquids; oily clysters. Some apply hot fomentations to the region of the organ, while others prefer cold lotions, ice, &c. Blisters and nitre are improper, from their well known stimulus upon the organs. When suppuration has taken place, pus is often discharged by urine, and debility supervenes. In such cases, tonics and astringents, as uva ursi, balsam copaiba, &c.

INFLAMMATION OF THE LARYNX. See *Cynanche Laryngæa*.

INFLAMMATION OF THE LIVER. Hepatitis. Of this disease there are two species, the *acute* and the *chronic*; the first displaying the essential characters of inflammation, the other, slow enlargement and hardness, with pain less acute: it often supervenes upon the acute.

Symptoms of the acute. Pyrexia, pain and soreness in the right hypochondrium, extending up to the clavicle and shoulder of the same side; attended with a cough, difficulty in breathing, and inability to lie on the opposite side; sickness, and vomiting of bilious matter; costiveness, but when stools do pass, they exhibit a whitish appearance, from a diminished secretion of bile, while the urine is of a deep saffron colour; the pulse strong and hard, the eyes tinged yellow.

Symptoms of the chronic. This comes on slowly with dyspeptic symptoms, sallowness of the countenance, headache, debility, anxiety, stools whitish or clay-coloured, urine high coloured, mixed with mucus, enlargement, hardness, soreness and pain in the liver, extending to the shoulder of the same side, as in the acute, often terminating in dropsy, scirrhus, or jaundice. The disease is so insidious, that collections of matter and other morbid appearances are frequently found on dissection, which occasioned during life but little inconvenience. Acute hepatitis

terminates in resolution, marked by a general diminution of all the symptoms, spontaneous hemorrhage from the nose, hemorrhoidal vessels, or other critical discharge; in suppuration, known by a gradual subsidence of all the symptoms, while rigours and a sense of weight and fulness is felt in the liver, and sometimes a fluctuation. The matter may find its way into the stomach or colon, and be vomited or discharged by stools, or it may pass through the diaphragm into the chest, producing empyema, or it may pass through the lungs and be expectorated. Is seldom fatal.

Causes. Besides those of inflammation in general, we may add long continued intermittents, frequent attacks of jaundice, obstructions in the liver or ducts, by gall stones or other causes, abuse of spirits, residing in warm climates, particularly the East Indies.

Diagnosis. From pneumonia by the pain shooting up to the clavicle and shoulder, and the bilious appearance in the countenance, and state of the feces and urine; from gastritis, by the violence of vomiting and heat at the pit of the stomach being absent; from spasm of the gall-ducts, by the fever and want of intermission of pain.

Treatment of the acute. The indications for the cure of inflammation must be promptly fulfilled, as bleeding, leeches, blistering, &c. &c. After three or four days, when the inflammatory symptoms have somewhat abated, we are to administer mercury, either by mouth, or by friction of mercurial ointment, in the quantity of a drachm rubbed over the part every night until the mouth becomes affected. But if these means fail, and suppuration actually ensues, we are to promote it by fomenting and poulticing the part affected, and when the matter happily points externally, and the fluctuation is evident, it is to be evacuated by placing the patient in a favourable position, and making an incision through the integuments with a scalpel, and then piercing the abscess with a trochar and canula. The dressings should be simple and the orifice kept open until the interior of the abscess has healed. The strength at the same time to be supported with bark, generous diet, &c. This result is quite common in the East Indies where it may be remarked they use mercury in much larger quantities, and open the abscess much earlier.

Treatment of the chronic. Mercury internally and externally, and continued so as to keep up a gentle action upon the system for some time; leeches and blisters to the seat of the liver. The costiveness and dyspeptic symptoms to be removed by purgatives, tonic bitters, and nutritive diet, together with warm and cold bathing, fric-

tions, removal from warm to cold climate, &c. If the liver be essentially injured, or if a scorbutic tendency prevails, mercury would be improper. In such cases the nitric acid would prove a good substitute. The hemlock is a good auxiliary to the mercury. The diet should consist of sage, rice, arrow root, &c. avoiding stimulating food and fomented liquors. A bath has lately been recommended by Dr. Scott for chronic hepatitis, composed of equal parts of nitric and muriatic acid, of which a sufficient quantity is to be added to tepid water to make it of the strength of weak vinegar. It induces ptyalism. Consult *Saunders and White on diseases of the liver*. *Lind on diseases of warm climates*; and *Pemberton on diseases of the abdominal viscera*.

INFLAMMATION OF THE LUNGS. *Pneumonia.* (*Peripneumonia.*) Pneumonia is sometimes combined with typhus gravior.

Symptoms. Great difficulty in breathing with dry cough and pain in the chest, increased upon lying down, making a full inspiration or coughing. Pyrexia, the pulse full and hard, and intense anxiety. These symptoms go on increasing very rapidly, the vessels of the neck becomes tinged and swelled, the face changes to a purple hue, and an effusion of blood or lymph takes place into the cellular substance of the lungs so as to impede the circulation and the patient dies of suffocation, generally from the third to the seventh day, some in 36 or even 24 hours. When pneumonia does not prove fatal from suffocation, it terminates, like other inflammations, in resolution, marked by a copious expectoration, hemorrhage from the lungs or other evacuation; in suppuration, manifested by rigors and a sense of fulness in the part, and an abatement of pain, but the breathing is more oppressed.

This matter is often extravasated into the cavity of the thorax, when it can be felt fluctuating between the ribs and from whence it may be evacuated by the operation of paracentesis. Sometimes so large a quantity of pus is discharged into the cells as to produce suffocation; in other cases it is expectorated in large quantities, hectic symptoms often follow. Tubercles often form in the lungs, and adhesions between the pleura and ribs are frequent. It rarely terminates in gangrene or scirrhus, but is often followed by phthisis. The *prognosis* must be drawn from the degree of violence and continuance of the symptoms.

Causes. Besides those of general inflammation, we may particularize singing, loud speaking, blowing wind instruments, cold damp weather.

Treatment. The general treatment of inflammation is here also applicable, particularly large and repeated general bleeding, in the outset; besides leeches and cupping glasses to the chest. As a free expectoration proves a most salutary evacuation, it should be promoted by the exhibition of expectorants, of which the seneka is very efficacious; by inhaling the steam of warm water and vinegar, with the addition of a small quantity of ether. As soon as a free expectoration has commenced, all other evacuations should be suspended. The chest should be extensively vesicated, the cough appeased with oleaginous and mucilaginous draughts, as oil of almonds, solution of acacia-gum, linseed-tea, &c. Opium may be given in an advanced stage to allay the cough and procure rest. In the winter season, the patient's apartment should be kept at about 60° of heat, and he should studiously avoid all fresh causes. When there is effusion of fluid into the thorax, giving rise to symptoms of hydrothorax, the proper treatment for that disease must be adopted. If from suppuratio a collection of pus be there, paracentesis must be performed.

In pneumonia typhodes, or pneumonia blended with typhoid symptoms, we are directed by authors to adopt a plan combined of the usual treatment in both cases. Bleeding is not deemed proper, but we are to substitute dry cupping, warm fomentations, and rubefacients to the chest, assisted by inhaling steam, cleansing the primæviæ, promoting expectoration and diaphoresis. Wine and opium are also allowed, when there seems much debility. Consult Sydenham, Huxham, Pringle, and Monro on diseases of the army. Cleghorn on diseases of Minorca. Homes' Clin. experiments.

OF SPURIOUS PERIPNEUMONY. *Peripneumonia Notha.* This form differs from the preceding by the vessels of the lungs being obstructed by viscid mucus instead of sily blood. It chiefly attacks old persons and debilitated habits. Its symptoms resemble the true species; there is besides a frequent expectoration of tough, viscid matter. It often proves fatal. In its treatment we are to bleed, if the pulse be full and much pain existing, and pursue the remaining treatment of the true species. See Report of Mass. Med. Society. Gallup on Epidemics of Vermont. Hale on Spotted Fever.

Carditis, pericarditis, diaphragmitis, and bronchitis, or inflammation of the heart, pericardium, diaphragm and bronchia, resemble pneumonia, and require the same treatment.

INFLAMMATION OF THE PERITONÆUM. *Peritonitis.* This disease chiefly attacks women in the puerperal state and may be somewhat conjoined with puerperal fever.

Symptoms. Pyrexia, pain and soreness of the abdomen increased upon pressure; together with tension, and enlargement equal to that before delivery; vomiting of bilious matter, suppression of the lacteal and lochial discharges, constant inclination to void urine, pulse small and contracted at 120 or 130. At length all the symptoms increasing, the pain becoming insupportable, especially on the slightest motion, the patient is in a state of utmost irritation and suffering and often perishes on the sixth or seventh day. Like other inflammations it terminates in *resolution*, when there is a gradual abatement of symptoms; in *suppuration*, when the symptoms will be mitigated, attended with rigors; in *mortification*, when there is sudden cessation of pain, but attended with hiccough, livid countenance, cold sweats and death.

Causes. Besides those of common inflammation, difficult labours, improper use of instruments, violent removal of the placenta, heating liquors or exposure to cold after delivery. *Diagnosis.* From enteritis by its generally happening in the puerperal state, and by no relief being felt upon a discharge of natural feces. *Prognosis.* *Favourable*, if the lacteal or lochial discharge returns, if perspiration comes on, if the pulse becomes full and soft with abatement of the symptoms generally. *Unfavourable.* All the symptoms increasing, termination in mortification.

Treatment. The general treatment of inflammation is here indicated, and must be carried into effect, in all respects. The application of blisters to the part, however, is objected to by some on the ground of the irritating effects of cantharides upon the neighbouring organs of the kidney and bladder. After general bleeding, however, blisters may be safely applied, provided they be sprinkled over with camphor and the patient drinks freely of mucilaginous drinks. Emollient fomentations are mostly recommended as external applications while others (see Dr. Sutton on Peritonitis) advise cold evaporating lotions. The small pulse, and apparent prostration or even syncope sometimes observable at the outset of the complaint, is not to deter us from bleeding, as the pulse will invariably improve after such evacuation. The common spirit of turpentine has been recommended in puerperal peritonitis by Dr. Brennan of Dublin. Acute peritonitis sometimes degenerates into chronic; it must be subdued by leeches, blisters and repeated cathartics.

There are some cases of peritonitis which seem to depend on excessive irritability more than true phlegmon; they, after the first general bleeding, mostly yield to local applications of leeches and blisters, together with camphor, opium and sometimes a small quantity of wine.

INFLAMMATION OF THE PHARYNX. See *Cynanche*.

INFLAMMATION OF THE PLEURA. *Pleuritis*. This disease differs from inflammation of the lungs, only in being seated in the pleura, or covering of the lungs, while the latter attacks their substance; the pain is fixed in one side, while, in the other, it is in different parts of the chest. In its treatment and all other respects, what is said in inflammation of the lungs, will be every way applicable.

INFLAMMATION OF THE PROSTATE GLAND. See that part.

INFLAMMATION OF THE SPLEEN. *Splenitis*. The functions of this organ are considered to be connected with the liver, and like it, subject to acute and chronic inflammation.

Symptoms. Pyrexia, pain and swelling corresponding to the size of the spleen, in the left hypochondrium, sometimes extending to the left shoulder, with cough and difficulty of respiration. The pain is pulsatory, pungent, burning, and increased by pressure. The pulse on the same side is often partially suppressed, intermittent and not quick. Vomiting of green bile, dyspepsical symptoms, and difficulty in voiding the urine are often present, vomiting of, and passing blood by stool.

Causes. The same as in other species of inflammation. The chronic is produced by long continued intermittents, and the affection is then called *ague-cake*. It terminates in resolution, suppuration or scirrhus. The disease often departs with a diarrhoea or vomiting of matter resembling coffee-grounds. As with the liver, suppuration may take place into the cavity of the peritoncum, or more fortunately into the intestines. The acute species may also degenerate into the chronic.

Treatment. The treatment of both species so nearly resembles that of the liver, that the reader is referred to it for information.

INFLAMMATION OF THE STOMACH. *Gastritis*. This disease, like enteritis, consists of two species, the *phlegmonous*, and the *erysipelatous*. The latter occurs only in advanced stages of other diseases, denoting a fatal termination, is unaccompanied with burning heat or general inflammation.

Symptoms. In the phlegmonous gastritis there is a violent burning pain at the pit of the stomach with excessive

soreness, distention, and flatulence; severe vomiting of every article taken into the stomach, with unquenchable thirst, restlessness, anxiety, debility, watching, delirium; quick, hard, contracted pulse, and sometimes severe purging. With an increase of the symptoms there soon follows hiccough, cold sweats, intermitting pulse and death.

Causes. Besides those of inflammation generally, we may add, poisons, ardent spirits, draughts of cold water when the body is much heated; also wounds of the organ, repelled gout, &c. *Diagnosis.* From any other disease, by the constant vomiting, thirst and burning pain at the pit of the stomach, and by the sudden prostration of strength. *Prognosis.* To be governed by the severity and duration of the symptoms, but generally unfavourable. When the disease does not immediately prove fatal by the vehemence of the inflammation, it terminates in resolution, or gradual decline of the symptoms; suppuration, attended with remission of pain, but a fulness and sense of weight, with rigors and hectic symptoms, ultimately proving fatal, unless the matter be vomited up or passed off by stool and the wound heals. Ulceration often follows this termination, destroying the parietes of the organ, when there will be fetid eructations, vomiting of coffee-coloured matter, and ultimately death. It often terminates in gangrene, when there will be sudden cessation of pain, soon followed by delirium, cold sweats, and death. Adhesions between the stomach and other viscera and scirrhus of the pylorus often follows. It is fortunately a rare affection.

Treatment. There is no disease in which the use of the lancet is so imperiously demanded, and in which such striking results are demonstrated, as in gastritis. We are therefore to resort to it, immediately, repeating the operation every four or six hours, either in the warm bath or not, until fainting be produced at each evacuation and the symptoms are mitigated. Leeches, cupping-glasses and blisters are next to be applied to the part, and emollient clysters thrown up the rectum. The distressful thirst may, in some degree, be appeased, by holding in the mouth a piece of ice; but as the stomach will retain nothing, medicine cannot be administered except in cases of poison, when the proper antidote is to be given. (See Poisons.) In wounds of the organ, nothing should be allowed to be swallowed for a few hours, until adhesion takes place, as any thing swallowed would be extravasated into the abdomen. When the inflammation has in some degree abated, small doses of opium may be given, to al-

lay irritation; jellies, arrow-root, &c. in very small quantities; clysters of broth, soup, and other nutritious articles. The utmost caution is necessary to prevent relapses. The feet should be kept warm.

INFLAMMATION OF THE TESTICLE. See *Testicle*.

INFLAMMATION OF THE THROAT. See *Cynanche Tonsillaris*.

INFLAMMATION OF THE WOMB. *Hysteritis*. In this disease the inflammation attacks the substance of the uterus, but often extends to the fallopian tubes, ovaria and the peritoneum covering the organ. All that is stated in inflammation of the peritoneum is equally applicable in this case.

INFLUENZA. See *Catarrh*.

INOCULATION. By this term is meant, the transfusion of some specific disease from one person to another, through the medium of a matter possessing the specific quality of the disease. The operation is principally confined to the small and cow pox. To insure the success of the operation it is necessary, 1st, that the matter be pure, unmixed with the matter of phlegmon, blood or other foreign substance. 2d, that the matter be fresh. 3d, that it be properly deposited in the person inoculated. In performing the operation, the cuticle should be gently elevated, and the matter inserted under it, to be conveyed into the system by the absorbents. The matter should be inserted without drawing blood.

INTERMITTENTS. See *Fever, Intermittent*.

INTESTINES. See *Wounds and Inflammation of*.

INSANITY, at its beginning, often resembles febrile delirium; see too Georget de la folie p. 237, 505. Intellectual disorder may be referred to that of the attention, to want of equilibrium between it and sensations, between the ideas and remembrances. The cause of the errors of insane people is they cannot fix and direct their attention. If an agreeable sensation fixes the maniac's attention, a sudden one the *monomaniac's*, a violent commotion that of the victim of *dementia*, reason at once follows, as long as the attention can be controlled and supported, i. e. till the impression becomes familiar or weak. All forms of insanity have their primitive type in some passion. From perfect calmness men pass, by insensible degrees, to violent passion, thence to furious mania or deep melancholy.

Previous to insanity some changes almost always occur in the physical functions and, long before, in the habits, tastes and passions. Insane people exhibit thoughts, desires, situations opposite to those which they presented be-

fore the disease ; neglect their interests and social decencies ; till they are quite restored, are ungrateful for care taken of them, think their disease has been misunderstood, that they are thwarted, because their excesses are not indulged. Not understanding what is said to them, they become impatient, generally misinterpret it. Hence that symptomatic suspicion, marked on their physiognomy, and increased by necessary restraint. They hate those who were most dear to them, fly from, speak ill of, abuse them. Some preserve a sort of affection, ever excessive, for their relations and friends, without confidence in those by whom, before their disease, their ideas and conduct had been influenced ; some take their relations and friends for strangers and enemies, think themselves at home when far off, and the reverse.

When aware of their condition, unless they recover soon, they are very difficult of management. Return to the moral affections within just bounds, tears of sensibility, desire to pour out their heart, be with their family, resume their habits, form a sure sign of recovery, much more than mere diminution of delirium.

Some cannot control their propensity to silence, to talking, singing, whistling, walking, running for many days ; scarcely stop for food. Some cannot distinguish words and syllables in books, the letters seem blended. The features of insane people are convulsed and bear the marks of suffering. Some stare at the sun and devour their excrement ; they seem incurable. Insanity often seems symptomatic or sympathetic.

Insanity before puberty is very rare. It sometimes appears during the efforts for the first menstruation, or during rapid growth. In youth, it is more acute, presents more sensible crisis ; in adults, becomes exasperated, fixed, concentrated, complicated with abdominal affection, terminates in piles ; later, is complicated with palsy, apoplexy ; its cure more uncertain. It prevails most between the ages of 25 and 35. Of insane men 1-15 became so before the age of 20 ; of women more than 1-6. More women than men become insane before the age of 25 and after 50. Insanity in women is almost always combined with hysterics, more concealed than in men. Women speak reluctantly of their situation, try to dissemble to themselves and others. Men are more readily cured and suffer fewer relapses. Insane women are almost always excited under menstruation : immediately after it has been abundant, insanity is often aggravated. Immediately after one, two, or three bleedings, mere sadness, often

passes to mania and fury. See too Pinel. de l' alienation. 2 ed. 318.

Hereditary disposition seems the most common cause of insanity. Of 300 rich insane Parisians it was attributed in 150 to this disposition. Such persons' cure is more uncertain and difficult, and relapse more likely than in others. Insanity seems transmitted through mothers a third oftener than through fathers; in children it appears in caprice and irregularity; they should be in situations unlike those in which the parents became insane. More pains are taken to educate the mind than the heart. Children accustomed to follow their propensities, unrestrained, are unfit to meet life's vicissitudes. The abuse of the arts of pleasing, unbridled taste for romance, dress and frivolity are here to be considered. People who abandon themselves to the impetuosity of imagination are very like insane people.

Almost all intense students, who have become insane, have been addicted to masturbation; it seems more destructive to men than to women. Insane people often give themselves up to it; maniacs least of all; it prevents cure and is followed by stupid brutishness, consumption and death. Drunkenness, debauchery, disorderly, careless habits degrade reason, tend to insanity, and are sometimes its first symptoms. In Salpêtrière, the Parisian asylum of 1200 poor insane women, of which Dr. Esquirol, who has a private asylum for insanity, and from whom most of these remarks emanate, has the immediate med. superintendence, 1-20 of these patients have been prostitutes; having abandoned themselves to all excess, they fall into demence sometimes with palsy.

Under continued heat, and great atmospheric commotion, insane people generally are more excited; under continued cold, more calm. In Salpêtrière, the admissions in nine years, from 1806 to 1814, were, in the several months, Jan. 162, 173, 187, 196, 243, 251, 265, 239, 206, 197, 198, 191 Dec. this proportion is specially true of mania, and in intensity.

Some insane people pass three months in melancholy, then three in mania, then four more or less in demence, and so on. Some insanities are quotidian, tertian, quarterly, appear weekly, monthly, quarterly, half yearly, yearly, every 2d, 3d, 4th year, at the same season, presenting the same causes, precursors, character, duration. Insanity is generally irregular in these points.

All physicians since Hippocrates, who have described epilepsy and insanity have pointed out, in all forms except

idiotism and chronic senile demence, certain changes, *crises*, viz. some evacuation, suppuration, fever, cutaneous or moral affection, &c.; it is rarely perfect, for insanity often attacks feeble people. Cure of insanity is uncertain unless such change has appeared. This subject was satisfactorily stated in 1808, before the Society of the Parisian med. school, and by the press in 1814, yet non-existence of these crises is supposed in Anat. Gen. de Bichat lxvi, translation I. 34; see too Georget de la folie 202, 207. Some insane people grow fat and delirium subsides at the same time; if not, bodily health evinces incurability of delirium or tendency to demence. Insanity is not hopeless so long as it is attended with bodily ailment. Insanity, specially melancholy, often ends under vomition, or purgation, sometimes of worms. Many insane people make efforts as if they would weep, yet do not; their paroxysms often end in flow of tears. Insanity often ends under return of perspiration; this fact suggests use of the bath, 77 to 88°; warm dress, air, &c. specially in melancholy; under great determination of blood to the head; cold should be applied to it. Insanity sometimes ends in hypochondria, hysterics, chorea. At Salpêtrière, half of those who die are palsied; of 267 who died 37 were apoplectic.

1804---'13,	2804	women entered,
	795	acknowledged incurable, i. e. aged, imbecile, epileptic, palsied,
	2004	were subjected to cure, of whom
	604	recovered in the 1st year,
	502	“ “ “ “ 2d “
	86	“ “ “ “ 3d “
	41	“ “ “ “ 7 following years.

General time of cure of curable patients is little less than one year. In 1-20 of those who recover, the slightest causes, inquietude, emotion, endanger return of insanity. Some, after recovery, though very reasonable, cannot act the part the used to act, even in their own concerns.

Marriage, as a remedy for predisposition to insanity, seems less favourable than has been thought; sometimes the mischief is increased: occupation of mind by the measures preparatory to marriage probably embraces most of its advantages.

Sequestration or isolation of an insane person consists in separation of him from home, from his servants, friends and habits, and putting him in places and among people strange to him, to give new direction to his ideas and affections, and to prevent the irritation he is likely to experience from the inattention, to his unreasonable desires, of

his household to whose obedience he has been accustomed. Separation from his friends is likely to correct his wrong ideas of them, he is more likely to appreciate the kindness of strangers than of his household whose kindness he claims. Sight of other insane people is likely to convince him of his disease. Dr. Willis sometimes merely changed his patient's furniture and attendants. Monomaniacs from ambition, love, pride, some melancholics, specially those inclined to suicide, should be sequestered, the subjects of visits to them requires great judgment applied to each case. Return to their family should be preceded by a state intermediate between that of sequestration and of their former habits.

Notwithstanding the most experienced attention, it is sometimes very difficult to decide on the character of the disease and consequently on the propriety of sequestration; it is then prudent to wait; from the delay no grievous inconvenience arises, much may result from precipitance. In the first month of insanity, specially mania, there are manifest remission, and very many cures; except under circumstances manifestly unfavourable to delay, is it not prudent to delay sequestration thus long, lest the sufferer be confirmed in the idea that he is insane and considered so, thus confirming his disease and obstructing his relief? Sometimes maniacal extravagance has contagious effect, specially on recent insanity. Insane people often seem deeply impressed by horror of confinement with others insane. Will not insanity be aggravated, specially in a house devoted to insane people, when the disease is partial, not connected with the sufferer's habits, domestic affections or particular objects, if he is very susceptible, considerably intelligent, does not dislike his home or friends, if his fears and disquiet are not kept up by the objects among which he lives or by a strong passion, or if he has long lucid intervals? Some insane people, having fruitlessly passed years in such houses, have travelled with advantage, accompanied by strangers. The number of aged persons in houses devoted to insanity, whose mind has become enfeebled, disgraces their family, who ought to watch over their infirmity.

[Cheerfulness irritates melancholy people, the gayest scenes please them but transiently, or depress them by contrast with their situation. I have often conducted a melancholic from them to asylums of misfortune, which convinced her that she was not 'the most wretched in the world.' This measure is advisable in melancholy disposed to suicide. The knowledge that we have many compan-

ions in misfortune resigns us to it ; many people are unhappy, who would not be so, did they know others' griefs.

To almost every body, at some time, idea of suicide presents itself, of leaping down, of drowning himself, when he chances to be on an eminence, at a window, on a quay, bridge or vessel. Sight of a river, firearms, poison has more than once awakened a propensity to suicide : people subject to it should be kept from objects likely to excite it. The king of England proposed one day to shave *himself* : Dr. Willis feared to hesitate in assenting, lest the king should think himself suspected of an intention of suicide, and thus get an idea of it. Dr. W. sent for the razors ; in the mean time, engaged the king about some papers on the table ; the razors were put on the same table, he attended to his papers, which encouraged W. to think suicide was not intended. The king, having shaved himself, returned to the papers, the razors were not removed immediately, lest the king should think it was feared he would make bad use of them.] These remarks, published in Boston, 1818, have been useful. A hypochondriacal melancholy person asked me to let him shave himself, I knew he intended suicide, he had made his will ; feeling secure, from my knowledge of his character, I let him shave himself. When he had done, seeing me calm, he cried, ' how well you understand me ! ' &c. From that moment, I had all his confidence.

Falret, M. D.
Paris, Sept. 1820.

Patients who are turbulent, who perseveringly refuse work, food or medicine prescribed, may be subjected to the douche, e. g. the patient being in a chair or bath-tub which has a wooden cover with a notch for the neck, 3 feet above is a stopcock of copper, of 4, 6, 12 lines' diameter, for dropping or pouring on the head from a reservoir and tube of leather, cold water, from some seconds to 3 minutes. The sudden application often disconcerts the patient and occupies the attention, to exclusion, at least temporary, of the maniacal idea, Nausea, vomition, heart-burning, paleness, yellowness, coldness of the head followed by heat ensue. Often, under one application, a furious patient becomes calm and compliant, headach ceases. The douche should not be used after meals nor under costiveness. This and the rotatory swing are often objects of apprehension and may be held out accordingly. Use of the swing is sometimes followed by faintness, vomition, purgation. [Should there be room in this dictionary, the subject of Insanity will be further treated.]

INTROSUSCEPTION, or *Intussusception*, or *Volvulus*. This affection consists in the passing of one portion or fold of intestine into another, either from above downwards, termed *progressive*, or from below upwards, then called *retrograde*. Mr. Langstaff (See Edinb. Surg. Jour. No. xi.) says, that children are particularly liable to this affection, though it is not always fatal. The worst cases are when the small intestines are protruded into the cæcum. The ileum, cæcum, and transverse portion of the colon, have been found in the sigmoid flexion of the latter. The *symptoms* attending this complaint are those of inflammation of the intestines and strangulated hernia. Sometimes a tumour can be felt at the part. There is also a difficulty in throwing up injections. The prognosis, when this disease is suspected, must be always unfavourable. Art can do very little in these cases, for adhesions speedily take place between the inverted folds, which renders the separation impossible. In this dilemma, nature herself will sometimes save the patient by causing the invaginated portion to slough off, when it will be discharged per anum, while the adhesions retain together the divided portions of the gut. The old practice of giving quicksilver is justly exploded. Our efforts should entirely be confined to bleeding and other means for averting inflammation.

INVERSION of the *Uterus*, *Anus*, &c. See under their respective heads.

IPECACUANHA. *Ipecacuanha*. The Root. Emetic ʒj. to ʒij.; in smaller doses, expectorant, sudorific. *Pulvis ipecacuanhæ et cupri sulphatis* emetic gr. xv. to ʒss. *Pulvis ipecacuanhæ et opii*, (Dover's powder) sudorific gr. x. to xx. *Vinum ipecacuanhæ*, emetic, f ʒj. to iss. Sudorific f. ʒj. to iʒ.

IRON. *Ferrum*. The metal. The different preparations of iron possess tonic, astringent and deobstruent powers in an eminent degree. *Ferri acetat. tinct.* ℞ x to xxx. *Ferri carbonas præcipitatus*. ʒss. to i. *Fer. carb. præparatus*. gr. v. to ʒi. *F. limatura purificata*. gr. iij. to x. *F. oxidum rubrum*. *F. phosphas*. ʒss. to i. *F. sulphas*. gr. i. to v. *F. tartras*. *Mistura ferri composita* (Griffiths's mixture, celebrated in phthisis) ʒi. to iii. *Pilulæ ferri sulphatis*. gr. i. to v. *Pil. fer. sulph. composita*. gr. x. to ʒi. *Tinctura muriatis ferri*. ℞ x. to xx. *Vinum ferri*. ʒi. to ʒss.

ISCHIAS. See *Joints*.

ISCHURIA. See *Urine*, *Suppression of*.

ISINGLASS. *Ichthyocolla*. It affords a viscid jelly, by ebullition in water, which is used in medicine as an

emollient, in complaints of the throat, stomach and bowels and urinary organs. With the addition of wine, nutmeg and sugar it is a very nutritious article for convalescents.

ISSUE, Signifies an ulcer, made designedly by the surgeon to excite a purulent discharge, for the prevention or cure of diseases. There are two modes of making issues, one, with a cutting instrument, the other by means of caustic or blistering plaster. The first is accomplished by taking up a fold of the integuments, and making an incision with a scalpel sufficiently large to admit one or more peas or beans, agreeably to the extent of surface we wish to suppurate; the peas are then to be introduced, confined with adhesive plaster and bandage, when, in a few days suppuration ensues. The peas are then to be withdrawn, the part washed, and fresh peas renewed daily. When a large issue is desirable the other mode is to be used. This consists in destroying a portion of integument with caustic, (potass) by laying down a piece of adhesive plaster with an aperture cut in it of a proper size, and then rubbing the exposed skin until it becomes black, afterwards applying a poultice until the part sloughs out. A string of peas or beads is then to be laid on the surface and confined with plaster and bandage. Blistering plaster will answer the purpose of caustic, or a piece of cork, india rubber, or spunk, ignited and applied to the skin for a few minutes. The French use moxa. Issues should be made in parts little exposed to motion, as the space at the insertion of the deltoid muscle, the hollow below the trochanter major, on either side of the spine, &c.

ITCH. *Psora*. This is a very infectious eruptive disease communicative only by contact. It is confined to the skin, rarely affecting the system. It is attributed to bad air, unwholesome food, and want of cleanliness. The inhabitants of cold mountainous countries are particularly predisposed to it, hence its frequency in Scotland.

The disease shews itself in a number of small pimples about the wrist, hams, waist, and between the fingers, causing an incessant desire to scratch. As these pustules are broken, the fluid which they contain spreads over the adjacent parts propagating, still farther, the disease. Microscopic animals inhabit this, as well as all other stagnant fluids, but they do not convey the disease. Sometimes the pustules are very large, attended with inflammation, when large boils are produced.

Treatment. Sulphur is completely specific. The patient should well rub himself, or if there be two persons,

they should rub each other with a liberal quantity of the sulphur-ointment, before the fire, during twenty minutes; then go to bed and lie twelve hours, which will effect a cure. Some repeat the process a second and third time by way of security. Thorough washing of the skin and purification of the clothes is afterwards necessary. Stimulating food and fermented liquors should be for a short time abstained from. Occasional doses of salts or other purgative. At the French hospitals they have a new method of using sulphur, by which the disagreeable smell is avoided. It is by dissolving five ounces of the sulphuret of potass in twenty gallons of water, at 98 degrees, in which the patient bathes for one hour, repeating the process from five to ten successive days. Sulphur has also been employed in Paris in the form of vapour. This is accomplished by strewing half an ounce of sulphur mixed with two drachms of nitre in a warm pan of hot coals, and with it warming the bed. The patient is to strip himself naked, get into the bed and be closely tucked up to prevent the escape of the gas. The process to be repeated seven nights. But when sulphur is objected to altogether, we may effect a cure by preparations of arsenic or oxymuriate of mercury in the proportion of ten grains to an ounce of hogslard, with which the eruptions are to be slightly touched, night and morning. If these applications bring out a rash, their use must be suspended for a few days and then resumed. White hellebore, decoction of tobacco, &c. will also remove this disease.

That species of itch consisting of small ulcers, is readily cured by the use of sulphuric acid internally, also externally, in the proportion of a half a drachm to an ounce of hogslard.

That species of itch denominated *psoriasis diffusa*, is cured by warm bathing, and the exhibition of the arsenical solution.

ITCHINGS IN PREGNANT WOMEN. These occur about labia pudendi, nymphæ, &c. and are to be relieved by means of cooling physic and saturnine washes. If this fail, apply leeches or scarify the part with the point of a lancet. The patient to wash frequently and live on a low cool diet.

JALAP *Jalapæ*. The root, cathartic gr. x. to ʒss. *Extractum Jalapæ*, gr. x. to xx. *Pitulæ jalapæ compositæ*, alterative laxative, i. to iiij. *Pulvis jalapæ compositus*, ʒ ss. to ʒj. *Tinctura jalapæ*, f. ʒj. to iiij.

JAUNDICE. *Icterus*. The accession of this disease marked by languor and inactivity, flatulence, acidities,

costiveness. In a short time the tunica conjunctiva exhibits a bright yellow, which soon extends over the whole body; the urine is of a high colour and tinges linen yellow; the stools are clayey or grey coloured. There is also a bitter taste in the mouth, vomiting, and an obtuse pain in the right hypochondrion, increased upon pressure, and in very severe cases, pyrexia. In long continued and unfavourable cases, the skin changes from a yellow to brown, or livid, attended with anasarca or ascites, petechiæ and maculæ; also passive hemorrhages ensue, and in some cases, symptoms of scurvy. Jaundice is more or less attendant upon all disorders of the liver, insomuch, that some deny it any rank beyond that of a symptomatic affection. The *proximate cause* of jaundice is an absorption, or regurgitation of bile into the system. This may be induced, by obstruction of that fluid, in the ductus communis choledochus; either by biliary calculi inspissated bile, spasmodic structure of the duct, or pressure upon it, either from tumours, scirrhotics of the surrounding viscera, or the uterus during pregnancy. Jaundice may also arise from a redundant secretion of bile, particularly in hot climates. A disposition to jaundice is generated by an abuse of ardent spirits; sedentary life, studiousness, grief, anxiety, passion, &c. The pain in the hypochondrion is undoubtedly caused, either by spasmodic obstruction of the duct, or the irritation or distention of that part by the passage of an irregular, or large sized calculus; hence the pain occurring in paroxysms. In such cases, there is often pains shooting up to the right shoulder, and the patient, to obtain relief from the pain in his side, bends his body forwards to his knees. Biliary calculi vary in size from a pea to a walnut, and can often be detected in the feces. Upon dissection, they are found in the gall-bladder and ducts, pori biliarii and cellular substance of the liver. There is seldom any inflammation attending jaundice.

Prognosis. Favourable, when recent, or occurring during pregnancy; also when there is an abatement of symptoms, a free state of the bowels, and the urine loses its deep yellow tinge. *Unfavourable*, when long standing, arising from chronic organic disease, attended with coldness of the extremities, &c.

Treatment. When the pain is severe, and attended with fever, we are to draw blood; repeating the operation, if necessary, or applying leeches or cupping-glasses to the part. The warm bath is next to be used until some degree of faintness is produced. Afterwards an opiate, repeating it every few hours, together with bladders of hot water, fomentations, blisters, &c. to the side, until relief is pro-

cured. Vomiting to be allayed by the effervescing mixture. The bowels to be opened; sudorifics are also proper, and the patient should pursue the antiphlogistic regimen. Biliary calculi are attempted to be dislodged by emetics, frictions, electric shocks through the liver, &c. Raw eggs, and a variety of other articles are frequently extolled for their solvent powers upon boiling calculi. The French give ether and spirits of turpentine for the same purpose. If symptoms of scurvy show themselves, antiscorbutics must be administered. (See *Scurvy*.) When the disease is attended with inflammation of the liver, the treatment of acute hepatitis will be proper; if, after long continuance, the organ becomes indurated, we must adopt the treatment of chronic hepatitis. The convalescence from jaundice is to be promoted by tonic bitters, soup, rhubarb, and small doses of calomel; exercise, change of climate, light nutritious diet, avoiding stimulating aliment of all kinds.

JAUNDICE IN PREGNANT WOMEN. This may arise from pressure of the womb obstructing the ducts, or from gall stones. The former will be relieved by delivery. But bleeding, opium, warm applications, cathartics, &c. will be proper in both cases. The diet to be sparing.

JAUNDICE IN CHILDREN. *Icterus Infantum.*

Symptoms. Soon after birth, languor, yellowness of the skin, bilious urine and coma. Arises from obstruction in the ducts, either from a collection of hardened meconium in the duodenum, or viscid matter in the duct itself. It is in general easily removed by gentle vomit, and afterwards keeping the bowels well open with castor oil, infusion of senna, &c. frictions and exercise.

JAW LOCKED. See *Tetanus*.

JOINTS, DISEASES OF.

INFLAMMATION OF THE JOINTS. This affection happens generally from blows, falls, sprains, wounds, or other injuries. When the inflammation attacks only those parts exterior to the capsular ligament, the case is not severe or obstinate, even if suppuration should actually take place. It yields to the proper treatment of common phlegmon.

When the interior of a large joint is in a state of phlegmonous inflammation, it is marked by pain, swelling, redness, heat, &c. with quick, small pulse, and all that increased vehemence attendant upon inflammation of ligaments, and those parts possessing but little vascularity. The inflammation first seizes on a small portion of the cap-

sular ligament, but extends shortly throughout its whole surface. There is an increase of the synovia, which becomes altered, and more aqueous in quality, by which it is less qualified to perform its functions in preventing attrition, hence the grating sensation often felt in an inflamed joint. Coagulating lymph being often effused in these cases, gives rise to organized cartilaginous or osseous bodies, within the cavity of a joint. The inflammation, though rarely, does now and then terminate in suppuration, the pus makes its way to the surface, through several ulcerated openings made in the skin; hectic fever soon follows, and with it, sometimes, a necessity for amputation. But in these cases, previous to suppuration, there is so much commotion in the system as to produce coma, delirium, and sometimes death. The inflammation may extend from the layer of capsular ligament reflected over the cartilage of the joint, to the cartilage itself, the cartilage may then become absorbed, and caries and anchylosis attack the ends of the bones. Inflammation, though at first purely phlegmonous, will soon become specific by exciting into action scrophula or other disorder. Hence the necessity of putting a speedy period to the inflammation in the outset.

Treatment. The remedies for common inflammation must be rigidly put into operation, particularly bleeding from the arm and repeated applications of leeches to the part, together with cold saturnine lotions. The anti-phlogistic plan promptly adopted. In a few cases fomentations and poultices are better than cold washes. After the inflammation has gone off, there frequently remains rigidity, dropsical effusion, &c., to be relieved by rubefacient liniments, bandages, blisters, frictions, moderate exercise, &c.

WHITE SWELLING. There are two species. 1st, *scrophulous*. 2d, *rheumatic*. The disease may be confined to the soft part, or the bone may be affected at the same time. The enlargement does not consist of increased size of the bone, as many suppose, but is caused by glutinous lymph effused into the cellular substance around the ligaments, tendons and other soft parts. The large articulations fall a prey to this complaint. It is generally confined to young persons under five and twenty.

Symptoms. Stiffness and swelling; the skin always retaining its natural colour; the swelling, if the knee be affected first, shews itself in the hollows on each side the patella; it is firm but somewhat elastic, from this it gradually extends itself over the whole joint. The

joint now exhibits uniform enlargement, with an appearance of blue veins and shining smoothness. The pain is, in some cases, trifling, in others severe, generally confined to one spot; sometimes preceding the swelling, at others not; sometimes attended with intermissions almost periodical; it is generally increased by warmth. There is often a great degree of heat about the part. Unable to bear his weight on the limb, the patient acquires a habit of touching the ground with his toe, hence the limb becomes permanently bent. At length, after weeks or months, suppuration and discharge take place. The matter discharged has the flaky and aqueous appearance always observed in scrophula, the cartilages become absorbed, caries seizes the ends of the bones, particularly the tibia, and anchylosis ensues. Glandular swellings of the neck, &c. are also often present. This continues for some time, when the health becomes seriously impaired, debility and emaciation ensue, hectic fever preys on the patient, and life soon becomes in imminent danger, unless relieved by medicine or amputation. In the *rheumatic* species, the pain is generally diffused over the joint and never precedes the swelling. The disease is often attended by rheumatic pains in other parts of the body, and a disordered state of the *primæ viæ*. The causes of this species are the same as of rheumatism. The causes of the other species the same as of scrophula. A blow, fall, or other injury generally proves the exciting cause for bringing the latent scrophula into action.

Treatment. White swelling is acute and chronic, when the joint is very sore upon being touched feels hot, &c. it is acute, and we are to adopt the principles for the cure of inflammation in general, especially local bleeding to the amount of several ounces, repeating the operation every day or two until the pain, heat and soreness are removed. Absolute rest is highly necessary. Cold lotions to be constantly applied. No time should be lost in resorting to these remedies, as the disease makes rapid progress towards suppuration during the acute stage. As soon as the inflammatory symptoms have yielded, the chronic stage may be said to exist, and the above practice must be relinquished, in favour of repeated blisters alternately on each side of the joint, or keeping a blistered surface discharging for some days by means of the savin cerate. Issues also are very proper, besides frictions with the hands or flesh brush, rubefacient liniments, salt water bathing, electricity, &c.; together with the internal use of alteratives, cinchona, &c., as in scrophula. In the *rheumatic species*, besides the local treatment, we should cleanse the

primæ viæ. Fomentations and poultices seem to be of doubtful efficacy. Bandaging the joint is often a good auxiliary, and, as there is a tendency in the limb to a bent position, it should be kept straight by means of a splint, so that, if ankylosis takes place, the limb will be more useful in that position. The plan of amputating the ends of the bones composing the joint as a substitute for amputation of the limb, seems discountenanced by the best surgeons. Consult *Crowther, Practical Obs. on White Swelling*.

DISEASE OF THE HIP JOINT. *Ischias*. This affection is very analogous to white swelling, and has, probably, the same different species, though the true scrophula constitutes the greater part. It is mostly met with in children, though no age or sex seems exempt from it.

Symptoms. It comes on in the most insidious manner, producing but little pain in the outset; slight weakness and limping are first observable with a bent position of the knee, and pain shooting from it down to the outer part of the fibula. This has often induced practitioners to apply remedies to the knee, instead of the hip. There is often pain in the groin and soreness, if the acetabulum is pressed. The limb begins to waste early in the complaint, known by a flatness and want of rotundity in the glutei muscles. But the most extraordinary circumstance is an increase in the length of the limb, (which may be seen by comparing the two limbs at the condyles,) often amounting to three or four inches. This, in Mr. Hunter's opinion, arises from that side of the pelvis becoming lower. Though the pain and contraction of the knee continue, that can be moved with ease, while the last motion of the hip joint gives acute pain. This may be considered the *first stage*, during which the health is but little impaired. The *second stage* is suppurative, and is attended with heat, pain, tension, and sometimes redness and swelling, together with sympathetic fever. At length the formation of matter is announced, by a lessening of pain and heat, rigours, startings and catchings of the limb during sleep, and a pointing of the fluid externally. A rapid obstruction of the whole structure of the joint ensues, the head of the femur becomes dislocated, turned upward and outwards, the limb shortened, the toes turned inwards, hectic follows, which terminates fatally in most cases. The causes are the same as in white swelling.

Treatment. Analogous to that of white swelling. Local bleeding should be resorted to the moment the disease is suspected. Twenty or thirty leeches may be applied eve-

ry day or two. Issues seem more beneficial in this case than blisters, and should be applied in the hollow of the trochanter major. When matter points, a small opening only should be made. Nothing is more necessary than absolute immobility of the limb. Anchylosis is frequent after recoveries. All cases, however, do not proceed with the same rapidity and regularity as above described. Consult *Ford on Hip Joint. Crowther on White Swelling, &c.*

CARTILAGINOUS SUBSTANCES IN THE JOINTS. These mostly occur in the large articulations, particularly the knee. They are floating about within the capsular ligament. They are moveable, and can sometimes be plainly felt and then may disappear for a month or two. They produce no other injury than now and then sliding between the articulating surfaces and suddenly impeding progression, obliging the person to stop immediately. When this happens often some degree of inflammation is excited. There is generally only one of those substances, though Morgagni has found twenty-five. They are generally about the size of a bean. Mr. Hunter has shewn, that these bodies are formed by a deposit of coagulated blood thrown out in consequence of a blow or other violence, but remaining attached by a small pedicle until it acquires organization, and is converted into a substance like that from whence it derives its support. It subsequently becomes detached.

Treatment. A great many cases may be very materially relieved by wearing a laced cap over the joint, as recommended by Mr. Hey, after placing it in the most favourable situation. But when this method, as well as the application of compresses and bandages, fails to prevent the cartilage from annoying the patient and prevents his walking, and he young, of a good constitution, and desirous of some further steps being taken for his relief, we are to extract the substance, when it is favourably situated and distinctly felt. The substance being securely fixed by an assistant, the operator draws the integuments to one side, and makes a longitudinal incision directly upon it, continuing the division of the fascia and capsular ligament in the same place. This will bring the opening in the integuments and capsular ligament not opposite each other; a very desirable circumstance, as it prevents admission of air, and escape of synovia, thereby favouring union by the first intent on. The cartilage being exposed to view, it is to be brought out with a tenaculum. The wound is to be quickly closed and confined with adhesive plaster, the patient to be kept in a state of entire immobility, and living low. Should symptoms of inflammation arise, they are to

be combated with local bleeding, &c. Before the operation a dose or two of neutral salts are proper, also the application of a few leeches, should there be increased action.

DROPSY OF THE JOINTS. *Hydrops Articuli.* The knee is also the most frequent seat of this disease. It consists of a collection of water within the capsular ligament, though occasionally in the bursæ mucosæ, attended with swelling, and, when not over distended, by fluctuation. If the limb is extended a fluctuating swelling is observable on each side of the patella. It is unattended with pain or rigidity. It is a local affection.

Causes. Rheumatic swelling, excessive friction, debility from fevers, irritation of the synovial gland by too much walking, local violence of any kind. Venereal or scrophulous taint, in the opinion of Mr. Russell.

Treatment. Our principal object is to promote absorption of the fluid by blisters, frictions, rubefacients, camphorated mercurial ointment; also leeches. Pressure by lace-cap or bandage must never be omitted. Mercury internally, also electricity are useful. If the disease depends upon debility, wine, bark, &c. must be administered. But when all these remedies fail, we are compelled to evacuate the fluid. This is done by drawing aside the integuments before making the incision, in order that the two openings in the integuments and capsular ligament may not be opposite each other. Sir Astley Cooper, after cutting the integuments and fascia, opens the cavity of the capsular-ligament with a needle, in preference to making a larger opening with a knife. The after treatment consists in subduing inflammation, should it arise, and applying pressure and frictions to prevent reaccumulation.

COLLECTIONS OF BLOOD IN THE JOINTS. These cases are not common, but when they do occur they are the consequence of a blow, fall, or other injury. It is known from the suddenness with which it takes place: abscesses, tumours, &c. being much longer in their formation. No operation need be performed for its evacuation. Discutients, as vinegar and sal ammonia and other washes are proper. Afterwards blisters, frictions, &c.

ANCHYLOSIS. This term implies an union of the bones of a joint, so as to destroy its natural motions. It consists of two species. 1st, the *complete*, or *true* anchylosis, i. e. absolute adhesion of the articulatory surfaces of bones and entire loss of its motions, caused by fractures extending into the joint, white swelling, inflammation, &c. 2d, the *incomplete*, or *false* anchylosis, i. e. rigidity or immobility

of the joint, consequent to spasms, blows, rheumatism, long confinement, &c. The *complete* is incurable. When an-
c. ylosis is expected to take place from long confinement
in one position, as under compound fracture, the joint
should be daily put into motion, as soon as circumstances
will admit; but in many cases, the disease will be aggra-
vated by such movements; and therefore if ankylosis
must take place, it is better to put the limb into a position
most favourable for the patient's use hereafter: thus, if
the knee or hip be affected, the straight position should be
chosen; if the arm or finger, the half-bent will be most
convenient. In the *incomplete* we are to resort to constant
motion, blisters, frictions, issues, also hot fomentations, as
well emollient liniment, as electricity, and pouring over
the part a column of cold water. Consult *S. Cooper's*
Treatise on Diseases of the Joints. *Brodie on ditto*. *Ford on*
Hip-disease. *B. Bell's Surgery*. *Crowther on White*
Swelling. *Iake Surgery*. &c.

FUNGUS HÆMATODES OF THE JOINT. See that dis-
ease.

JUNIPER. *Juniperus*. The berries. Diuretic, car-
minat &c. d. apoth. 3ss. to 3j. *Oleum juniperi*, Mij.
to x. *Spiritus juniperi compositus*, f. 3ij. to vi.

KING'S EVIL. See *Scrophula*.

KINO. *Kino*. The extract. Powerfully astringent,
grs. x. to dj. *Tinctura kino*, t. 3j. to iij.

LABIA LEPORINA. See *Hare-lip*.

LARGOPHTHALMIA. See *Hare-eye*.

LACTUMEN. See *Eruptions in Children*.

LACTUCARIUM. *Lactucarium*. The concrete juice.
Refreshing anodyne.

LARD. *Adeps*. (*Hogs Lard*.) Emollient. It forms
the basis of several ointments.

LARYNX, *Inflammation of*. See *Cynanche*.

LARYNGOTOMY. See *Tracheotomy*.

LAUDANUM. See *Opium*.

LAUGH, *Sardonic*. *Risus Sardonicus*. So called from
the herb *sardonica*, which being eaten causes a deadly con-
vulsive laughter. "In this disease there prevails a fit of
laughing, arising from no evident cause, which continues
often in a violent degree for three or four nights, so as to
prevent the patient from sleeping. By its duration in this
way, great debility is produced; and frequency of the
pulse, and other febrile symptoms arise. It then either
proves fatal by its violence, or goes off spontaneously.
Antispasmodics, such as musk, castor, assafoetida, cam-

phor, and ether, have usually been employed to remove the disease, but without effect, so that we are unacquainted with any remedy that will prove effectual, and the spontaneous cessation of the fit is more to be trusted to than any aid from medicine. Large doses of opium might probably afford some relief." *Thomas's Practice.*

LAVENDER. *Lavandula.* The d wels. Stimulant, aromatic, ℞j. to ℥j. *Oleum lavandulæ*, ℞. to v. *Spiritus lavandulæ*, f. ℥j. to iij. *Tinctura lavandulæ*, f. ℥ss. to ij.

LEAD. *Plumbum.* The metal. Its preparations are, internally, sedative, astringent, styptic, in hemorrhage. Externally, sedative, anti-inflammatory, very useful in all cases of local inflammation. *Plumbi oxydum semivitreum*, (litharge.) *Plumbi subcarbonas*, (white lead;) these two articles are only used for the preparation of others. *Ceratum plumbi subacetatis liquidum.* *Ceratum plumbi subcarbonalis compositum.* *Unguentum plumbi subcarbonatis*; cooling desiccative applications of very extensive utility. *Collyrium plumbi acetatis.* *Collyr. plumbi acetatis et opii*; their virtues fully justify their names in all cases of weak eyes, and in the second stage of different species of ophthalmia. *Emplastrum plumbi*, (litharge plaster, diachylon) *Emplastrum plumbi subcarbonatis compositum*, (compound litharge plaster;) these plasters are digestive, suppurative, and discutient. *Plumbi acetas*, (sugar of lead;) used internally, in doses, gr. i. to v. but by some, in urgent cases, from grs. v. to xx. opium should be added to prevent it from producing pain or cramp in the stomach and bowels: for lotions, ℥j. to ℥x of water. *Plumbi subacetatis liquidus*, (Goulard's extract,) f. ℥j. to f. ℥viij. of water, makes an excellent collyrium and cooling wash.

LEMON. *Limon.* The fruit. An agreeable febrifuge; the acid antiseptic. See *Acid, Citric.* *Oleum limoni*, aromatic, stomachic, ℞j. to v. The rind tonic.

LEPRA MERCURIALIS. See *Erythema Mercuriale.*

LEPROSY. *Lepra.* This loathsome and infectious disease is of very great antiquity in the primitive nations of the old world; and in the West Indies it is particularly prevalent among negroes. It is occasionally met with, under a mild form, in northern countries. It is hereditary, and apt to continue in a greater or less degree during life.

Symptoms. An eruption of numerous copper-coloured spots dispersed over the body, increasing in size and number for several months, without possessing much sensibility, or materially affecting the general health. At length,

however, the skin grows rough and scaly, the features enlarge, the eyebrows and beard fall off, the alæ of the nose swell and become scabby, the nostrils are ulcerated, the lobes of the ears thicken, the voice grows hoarse and nasal, the toes ulcerate and drop off, the breath and sores are very offensive, and the whole system becomes a mass of putridity.

Causes. Hereditary taint; infection, by contact, with the matter after ulceration.

Treatment. The cure should be attempted quite early by putting the patient on a vegetable diet; by avoiding all animal food and stimulating liquors; by paying the utmost attention to cleanliness and keeping the bowels open. From this mode of living it will be hardly ever safe for the patient to depart. In addition to these means, we should administer mercurials, antimonials, and other alteratives. The Plummer's pill at night, and the decoction of sarsaparilla thrice a day will be found very efficacious: also arsenic, and when putrescent symptoms appear, the mineral acids and other antiseptics. The sores are to be washed with warm soap and water, and dressed with some mild ointment. The mineral waters are sometimes useful. Dr. Thomas found great advantage from the use of fermented spruce beer as a common beverage. The mild species of northern countries requires the same treatment.

LETHARGY. An apoplectic diathesis, heaviness, dullness, and plethora. Is relieved by leeches, cupping, and cooling physic.

LEUCOMA. See *Cornea, Opacities of.*

LEUCORRHOEA. *Fluor Albus* (The Whites.)

Symptoms. An irregular discharge of a white pellucid fluid from the uterus and vagina, afterwards varying its colour to a green, yellow, or brown hue, then becoming somewhat acrimonious, exciting a smarting in making water; attended with pains in the back, loss of strength, paleness, languor, &c. The sleep is disturbed and unrefreshing; the patient is dejected and disposed to hysteria and melancholy. The menses are sometimes very much diminished, at others profuse. In advanced cases, the patient has palpitations, swelling of the legs and hectic symptoms; death sometimes follows.

Causes. Frequent miscarriage, immoderate coition, profuse menstruation or other evacuations, organic disease of the uterus, poor diet, abuse of tea and other tepid liquids, sedentary habits and any cause producing general or local debility. It is known from gonorrhœa by the discharge being, not constant nor attended with heat, scalding, itching, or swelling in the labia, or glands of the

groin. The discharge, moreover, often comes away in lumps and in large quantities.

Treatment. The indications are, 1st, to arrest the discharge, and 2d, to restore the tone of the parts and the system in general. The first is to be accomplished by removing all irritation in the alimentary tube, and then administering astringents, as zinc, alum, kino, &c., together with injections thrown into the viscera, composed of the same articles. An injection composed R Zinc. sulph. 3j. Acetat. plumb. grs. x. Aquæ, 3j. m. to be used thrice a day is very useful. The parts should also be frequently well washed. In addition, much benefit is often derived from the use of medicines which stimulate the urinary passages, as balsam copaiba, tincture of cautharides, &c.; also blistering the sacrum. The second indication is fulfilled by tonics, nutritious diet, cordials and wine; cold bathing, gentle exercise, &c.; avoiding all violent motion, passions of the mind and all exciting. See *Appetite, Loss of*. Pain to be relieved by opium. If the disease is dependent upon organic affection these must claim our attention.

LIGATURE. This is a piece of thread or silk doubled and waxed for sewing up recent wounds, (see *Sutures*); tying wounded blood-vessels; and for tying around tumours in order to effect their removal by ulceration. Dr. Jones, in his work on hemorrhage, has shown, that, when a ligature is properly applied upon an artery, its effects are to divide its middle and internal coats; which is followed by a speedy adhesion and union of its sides. All ligatures should be round, firm, and tied with a good degree of tightness.

LINIMENT. A soft, oleaginous compound for rubbing sprained, rheumatic, or otherwise diseased parts. By rubefacient liniments in this book is meant such as excite a degree of warmth and redness, as the linimentum ammoniæ, lin. tereb. com., &c.

LIME. *Calx.* *Aqua Calcis*, antacid, astringent, useful in pyrosis, also lithontriptic, 3iv. to viij. externally for burns mixed with milk. *Calcis carbonas præparatus*, absorbent, ʒj. to 3j. *Mistura calcis carbonatis*, same, 3j. to ij. *Pulvis calcis carbonatis compositus*, ʒj. to ij. *Liquor calcis muriatis*, 3ss. to j. in scrophula, dyspepsia, &c. *Linimentum aquæ calcis*, for burns and scalds. *Trochisci calcis carbonatis*, for heart-burn, one, two, three or more.

LIPPITUDOS. See *Eyes*.

LIQUORICE-ROOT. *Radix Glycyrrhizæ*. Pectoral, ad libitum. *Extractum glycyrrhizæ*, ad lib. *Trochisci*

glycyrrhizæ cum opio, useful in cough, depending upon irritation of the fauces, &c.; 7 1-2 contain one grain of opium.

LITHIASIS. See *Gravel and Stone*.

LITHONTRIPTICS. In using this class of remedies we are to be governed by the kind of stone or gravel existing. According to Dr. Wollaston, those calculi composed of uric acid, are by far the most prevalent, and are distinguished by red or dark yellow colour, generally rough surface, and are acted upon, (out of the body) by weak alkaline preparations, but not by acids. For such, lime-water, the solution of potass, (*U. S. Pharm.*) Magnesia, soda and potass waters, are indicated. The *fusible* calculi as well as the *bone-earth*, are acted upon by acids, particularly the muriatic, which should be constantly administered, in any vehicle slightly acidulated. The moriform, known by its rough protuberances, weight, and compactness, and consisting of oxalate of lime, is the most difficult of solution: Fourcroy found it, in some degree acted upon by nitric acid. It is the most uncommon species.

LIVER, Diseases of. See *Inflammation of the Liver*.

LOCHIA. A discharge from the uterus immediately after delivery, and for several successive days. It proceeds from the vessels which are torn in the separation of the placenta. It is pure blood in the outset, but after a few days becomes mucons, and then ceases. Sometimes large coagula are discharged, with labour-pains. When very profuse, it must be restrained by cold cloths, &c. as in abortion and menorrhagia. But if it be too limited in quantity, or becomes suddenly suppressed, by cold or other cause, attended with fever, full pulse, headach, &c. the discharge must be solicited, by pediluvium, warm fomentations to the genitals and loins, and emmenagogues. Should the symptoms be urgent, bleeding, the neutral salts, and antimonials will be proper; also abstinence from all stimulating food.

LOCKED JAW. See *Tetanus*.

LOG WOOD. *Hæmatoxylin*. The wood. Astringent. *Extractum hæmatoxyli*, ʒj. to ʒj.

LONGINGS. in *Pregnant Women*. These should be gratified to a rational extent, or the woman may miscarry. The marks and malformation in some children must be attributed to irregularity in the process of generation, and not to the imaginations of the mother. They are in fact *lusus naturæ*.

LOTIONS. Those are fluid applications, and are usually applied by wetting pieces of linen and placing them upon the part designed. Saturnine lotions means those

composed of lead. as R. Plumbi subacet. liquidi, ℥j. Aquæ f. ℥viij. m. vel R. Plumb. acetat. ℥ss. Aquæ, f. ℥viij. m. Evaporating or discutient lotions; R. Ammoniacæ acetatis liquidi; alcohol dil. aquæ part. equal. in. R. Ammon. muriatis, ℥j. R. Camphoræ, f. ℥xvj. m. R. Ammon. mur. ℥ss. Acet. distil. alcohol dil. āā f. ℥xvj. m. These applications are very useful in sprains, bruises, swellings, ecchymosis, &c.

LUES VENEREA. See *Venercal Disease*.

LUMBAGO. See *Rheumatism*.

LUMBAR ABSCESS, and PSOAS ABSCESS. These affections are good specimens of what are called chronic abscesses. In psoas and lumbar abscess the matter forms behind the peritoneum in the cellular substance surrounding the psoas muscle, and descends with it to the groin. Its formation is not attended with fever, pain, or inflammation, there is felt, merely a dull uneasy sensation in the region of the loins, but this is so ambiguous that the nature of the disease is often not suspected until swelling and fluctuation appear in the groin: it is still without pain or inflammation, but dilates on coughing, and diminishes when the body is horizontal. It soon passes down under Poupart's ligament, and becomes extravasated within the fascia lata. The matter sometimes presents itself at the point where the hip disease shews itself, also near the vertebræ, sometimes near the anus, and even at some part of the abdomen. In lumbar abscess the spine is diseased. Some suppose these affections scrophulous. The causes are very obscure. They can sometimes be traced to a sprain or blow.

Treatment. It is good practice in common acute abscess, to allow it to burst of its own accord, or at least to abstain from making any opening until the matter be fully formed: but in chronic abscess, from the tendency of the matter to diffuse itself rather than to make its way to the surface, an early opening seems preferable. Some open them with a seton, others make a large opening sine curâ, and allow the air free ingress; an inflammatory affection of the whole cyst often follows, causing violent constitutional commotion, and frequently death. Mr. Arbenethy opens the tumour with a broad abscess lancet introduced somewhat obliquely, enough to allow the escape of the coagula with which the matter is frequently blended. As soon as the matter is evacuated, the wound is to be closed with lint and adhesive plaster, that it may heal as quickly as possible, which it usually does without difficulty. Fresh matter is soon formed, which gravitates to the bottom of the sac, leaving its upper part undistended, by

which it has an opportunity of contracting and healing. As soon as the matter points again, it is evacuated, and the wound healed as before, and this process is repeated as long as any matter forms, and the cyst becomes obliterated. After the first or second operation the constitutional symptoms grow much milder. As the cyst is an absorbent surface as well as a secreting one, the promotion of absorption is to be attempted in conjunction with the plan just detailed. For this purpose we may once or twice a week exhibit the dry vomit, so called, consisting of sulphate of copper, allowing no fluids to be drank after it; also by blistering the integuments over the cyst, keeping up a discharge by savine ointment. Issues should be applied in the vicinity of the spine, especially if that be diseased also. Electricity may also be useful. This treatment is also to be adopted prior to the appearance of matter externally, whenever the disease can be ascertained to exist; for by it many cases have been arrested and even removed without discharging matter, it being entirely absorbed. It is far better to have an incised opening than an ulcerated one, and a trochar makes a wound less favourable for healing than a lancet. In the constitutional treatment, we are in some degree to be governed by the state of the system: if it seems declining in strength, it must be supported by nutritious food, wine, bark, &c. If there appears a scrophulous diathesis, the treatment for scrophula must be resorted to. Consult *Abernethy's Surg. Essays, Part 1st and 2d. Crowther on White Swelling. Leake's Surgery, &c.*

LUNGS. See *Inflammation of, and Hemorrhage from the Lungs.*

LUXATION. See *Dislocation.*

MADNESS. See *Insanity.*

MADNESS, Canine. See *Poisons.*

MAGNESIA, (calciued). Absorbent, laxative, antacid, grs. x. to xx. *Magnesiae carbonas*, same, ℥j. to 3j. *Trochisci magnesiae*, for the heartburn. *Magnesiae sulphas*, cathartic, ʒ ss. to iʒ.

MALIGNANT FEVER. See *Fevers.*

MARJORAM, *Wild. Origanum.* The herb. Stimulant. *Oleum organi*, ℥i. to ij.

MAL D'ESTOMAC. *Cachexia Africana*, which see.

MAMMA, *Inflammation of.* See *Breast.*

MANIA. Permanent delirium relative to all sorts of objects, with exaltation of the vital forces, quick pulse. Its origin is in disorder of the understanding, followed by that of the moral affections, (passions) and determina-

tions. A man, who just now seemed to have his faculties fully, suddenly forgets all about him, even himself. A woman, the image of candour, mild, modest, timid, who speaks but kind and generous words, is a good daughter, wife, mother, suddenly becomes audacious, ferocious, obscene, blasphemous, her nakedness defies observation, she threatens her father, strikes her husband, cuts her children's throats: insensible carelessness, loss of remembrance follow, every thing melts away in demence; no more thought, she drags along a stupid material life without desires or regrets, sinks by slow degrees to the grave. The maniac is in the midst of error; drawn along by sensations and ideas, numerous, fugitive, without order or connexion; instead of directing the other faculties, the attention is overpowered by them, he cannot fix it on each object and idea to receive their impression, hear and follow reasonings; confounds times, most distant places, strangest persons; from momentary impulse, goes toward an object, does not reach it, turns from a rapid course, suddenly stops, seems deeply occupied with some design; suddenly sets off again, sings, and hollows; his countenance expresses admiration and joy, he weeps, laughs, dances, speaks softly, then loudly, makes a thousand insignificant, ridiculous gestures; his desires know no limit but force, to satisfy them, all means suit him, he sees not their danger or advantage; dashes, or leaps over obstacles; impatient of confinement, sets fire to his room, or leaps from a window, perhaps thinking it a door, or himself in a lower story; bears heaviest weights, breaks strongest bonds, overthrows many men who try to confine him; thinks his strength supernatural, invincible; becomes more furious, if one or two persons try to restrain him; is timid, calm, if surrounded by many.

A paroxysm may last years; if it ceases suddenly, another may be expected. When it ceases, he seems waked from a dream, as if an obstacle, between him and the world, had dropped from his eyes; he is exhausted, speaks or moves but little, seeks solitude: when he has become reasonable, tells what he has seen, heard, felt, which, in delirium, he seemed not to have perceived; his motives, determinations: often his remembrances do not appear till full health, or many months after presumed cure.

Some maniacs speak and write with ease, are remarkable for striking expressions, deep thoughts, ingenious associations; pass most rapidly from most affectionate expressions to injury, use most incoherent, voluble, stunning language, nothing can check it, a language of their own; repeat, for many hours, the same word, phrase, musical note;

talk to themselves as to a third person ; take the swollen tone of vanity, keep aloof, seem to abjure all idea of religion, are excited, irritated by every thing ; cunning, liars, quarrelsome, discontent with, and complain of every body and thing ; delight in misconstruing best intentions, exciting animosity, are ever ready to justify themselves.

Some, before mania begins, become active, eager, jealous, restless, impatient, amorous, indolent, indifferent, quit business and domestic concerns, give into extravagant speculation ; the anxiety and advice of friendship irritate them by degrees to the height of mania, or to murder the adviser ; they think they are sick, have presentiment of severe disease. Some people, subject to habitual indisposition, which has disappeared suddenly, think themselves at the height of health, seem to feel a happiness they cannot describe, tell it to every body ; think nature embellished, every thing easy, themselves raised to greatest dignity, in higher regions where they shall dwell for ever ; agitation gradually increases, they become gay maniacs. Hours, days or months before mania breaks out, some people seem deprived of all sensation and ideas, stay where they are put, must be dressed, their food be carried to their mouths. Many, immediately before a paroxysm, have grievous headach, fancy a foreign body is in their head, which leads them to beat it against a wall, even fatally. Sometimes mania begins with convulsions.

In or before many paroxysms, some say they feel a hot fluid circulating in their vessels ; they choose to lie on the floor, cannot bear any clothes, delight in melting handfuls of snow on their bodies, break the ice and throw themselves into the water, expose their body, particularly their head, under a fountain ; beg for a cold douche. A maniac became furious at night, howled most frightfully ; at 2 A.M. had a douche ; during it he seemed delighted and grateful ; slept wonderfully till dawn. From greater motion maniacs generate more heat than other men, under severe cold are more agitated. Most maniacs eat voraciously ; when so delirious as to be ignorant of their wants and what is meant by offer of food, refuse it ; such delirium lasts not dangerously long. Maniacs are subject to obstinate costiveness, what is worse, profuse diarrhoea ; sleeplessness, for days, weeks, months. Their features become wrinkled, turned towards the nose, head high, hair bristling ; face red, particularly the cheek-bones, or pale ; eyes red, sparkling, fixed toward the sky or wandering. Some are more calm, morning and evening ; remission is often very regular every two days : 1-3 of

cases are intermittent. Some maniacs become exceedingly emaciated, mania does not begin to subside till they are in a very low state, they are many months in recovering from it, as soon as they seem completely cured physically and intellectually, a new paroxysm appears.

1st period of mania presents heat in the head and bowels, pain at the stomach, disgust at food, thirst, internal agitation, wandering uneasiness, dreams, alternate gayety and sadness, sometimes transient delirium; affection for friends continues.---2d, symptoms increased, moral affections perverted, some acts of violence; after a time, more calmness, paroxysms rarer, more attention to external impressions---3d, moral affections waked, features less convulsed, emaciation diminished, sleep prolonged, the sufferer aware of his condition.

In youth mania appears in all its forms. If it or melancholy breaks out, after sixty years of age, it is in robust, hale people. It is more frequent and violent in men. Women are more blustering, talkative, clamorous. The sanguine, nervous temperament, which every thing irritates and excites, plethoric, strong, very susceptible, lively people, of ardent imagination seem most liable to it, and to 1st form of monomania; some who have been subject to hemorrhage, somnambulism, hysteric symptoms, epilepsy. Of 132 poor women in whom mania was attributed to physical causes,

.	.	.	in 88, to hereditary predisposition,
..	.	.	. 38 . consequences of child birth,
.	.	.	. 27 . disordered menstruation,
.	.	.	. 12 . critical period.

Of 183 in whom

.	.	.	to moral causes,
.	.	.	in 54 to disappointed love,
.	.	.	. 36 . fatigue.

No form of insanity is so readily cured as mania, so short of duration, or so little fatal. Of 1200 maniacs, mostly women, but 30 died of mania simply. The diseases which most frequently prove fatal to maniacs are brain-fever, apoplexy, consumption, sometimes exhaustion from agitation and excess of delirium, even to syncope; the sinners lie in bed, repel those who approach, their limbs are cold, sometimes purple; they die, specially if exposed to cold, in a few days.

Mania is complicated with palsy and scurvy, epilepsy fatally, cutaneous affections, severe fevers. In hysterical mania, amorous ideas extend themselves to all objects fitted to excite them. Mortality 1 to 25.

Maniacs' rooms should be quiet, retired, shady. Maniacs should be confined only so far as to prevent them from doing mischief to themselves or others; and, when calm enough, should be employed.

Some maniacs become melancholy under remembrance of their delirium, think they are no longer good for any thing, and objects of contempt. Some, restored to society, do not acquire perfect health for a year or two, continue very susceptible, are ashamed of the condition in which they have been, dread the first interview with their friends. Very few are willing to speak of their disease or see those who took care of them. These considerations are sometimes followed by melancholy, mania, suicide.

Esquirol.

MANNA. *Manna*. The concrete juice. Laxative, 3^{ss}. to j.

MARASMUS. *Atrophy*, which see.

MEADOW SAFFRON. See *Saffron*.

MEASLES. *Rubeola*. This is an inflammatory, infectious, and eruptive fever. Measles are divided into two species, the *mild* or *benign*, and the *malignant*. Willan makes three species, viz. 1st, *rubeola vulgaris*; 2d, *rubeola sine catarrho*, without catarrhal symptoms, and which does not secure the patient from either of the other species; 3d, *rubeola nigra*, when it suddenly assumes a black or purple hue. Measles occur but once during life, though there may be a rare and solitary instance to the contrary, as in small pox. On many occasions Willan's 2d species has been mistaken for the more perfect forms of the disease.

Symptoms of the mild. Synocha-fever, cough, hoarseness, difficulty in breathing, constant sneezing and coryza, nausea, dulness, red and watery eyes, drowsiness, itching and swelling of the face. About the fourth day an eruption of small red spots resembling flea-bites, but distinctly elevated above the skin, appear on the face and neck, which, in a day or two more, spread over the body. No remission of the fever or other symptoms takes place with the eruption. About the sixth day the eruptions on the face turn brown, and about the eighth or ninth they disappear, with a mealy desquamation of the cuticle, and often a diarrhoea. Often the symptoms are more severe, with spasms of the limbs, subsultus tendinum, delirium, coma, so as to destroy the patient. Coma, however, is always present more or less in measles. In some cases the eruption comes out very seriously.

Symptoms of the malignant form. Typhoid fever, petechiæ, and other marks of putrescency, the eruptions appear early, and all the symptoms are in an aggravated form

with, in some cases, sore throat and other appearances of cynanche maligna.

Causes. Specific contagion. *Diagnosis.* From other eruptive complaints, by the sneezing and catarrhal symptoms. In scarlatina there is a general efflorescence, while in measles, the eruptions are separate, distinct, and elevated, having the colour of the skin between the pustules.

Prognosis. *Favourable.* Mildness of the symptoms, regularity in the progress of the eruption, mild diarrhœa, or diaphoresis, copious expectoration. *Unfavourable.* Typhoid symptoms, the eruption tardy and irregular, pneumonia, convulsions, delirium, sudden recession of the eruption without desquamation. Measles have the power of arresting the cow and small pox, and even the whooping cough during their own progress. They have also a tendency to bring to light latent diseases, as scrophula, &c.; also to engender others, as diarrhœa, dropsy, pulmonic affection, &c. Dr. Home, of Edinburgh, attempted to mitigate the severity of the measles by inoculation. His plan, however, is but little followed.

Treatment of the mild species. Many cases run their course without difficulty. But in severe cases it is proper, particularly if the lungs be much affected, to bleed generally and topically, also to administer emetics, purgatives, demulcents, expectorants, blisters, and adopt the antiphlogistic regimen. If the eruption be tardy, or suddenly recede, cordials, diaphoretics, warm bathing, pediluvium, blisters. Opium, to allay irritation after the inflammation has subsided will be proper. Diarrhœa, if likely to prove critical, and not too severe, is not to be molested; but, if otherwise, it must be checked with kino, catechu, and other astringents. After the departure of the disease a few purges will be proper. The patient should, during the eruption, be kept moderately and comfortably cool.

Treatment of the malignant. The plan laid down for the treatment of typhus gravior will be here applicable. Consult *Willan on Eruptive Diseases. Reports on the Diseases of London. New York Medical Repository, vol. 5. No. 3.*

MECONIUM. *Retention of.* The meconium is a dark coloured, viscid matter, discharged from the bowels of infants shortly after birth, by the aperient quality of the mother's milk. If the secretion of milk, however, is backward, or proves insufficient, relief is easily procured by giving a drachm or two of castor-oil, a solution of manna or the like. The practice of giving infants, at birth, a variety of nauseous and disgusting articles cannot be too much reprobated. In a few cases, retention is caused by an imperforate anus. See *Anus, Imperforate.*

MELANCHOLIA. See *Monomania*.

MENORRHAGIA. See *Hemorrhage from the Uterus*.

MENSES. The menses is that monthly sanguineous discharge which takes place from the uterus (except during pregnancy and suckling) from the age of puberty to forty or fifty. The consummation of this phenomenon, establishes a capability of impregnation, and its departure carries with it that attribute. In warm climates it begins earlier, and departs proportionally sooner. Its first appearance is preceded by enlargement of the mammæ, pelvis, and parts of generation, and by symptoms of hysteria, which occur more or less at every subsequent discharge. The quantity of fluid discharged differs in different habits and climates. In warm latitudes, and in relaxed and delicate habits a much larger quantity is lost than in the reverse of these cases. In general, however, from four to six days continuance, and a discharge of five ounces is a fair medium.

MENSES, Retention of. Chlorosis. From some defect of power to propel the blood from the uterine vessels, or other causes not understood, the regular menstrual flux does not take place at the proper period. This is not always immediately attended with disease, though after some time, a variety of morbid actions supervene constituting the disease under consideration.

Symptoms. Heaviness, languor, palpitations, pains in the back, loins, hips, &c.; flatulence, costiveness and other dyspeptic. After a time, from a pale, the face becomes of a yellowish hue, and sometimes somewhat green; hence the term green sickness. The countenance and whole body display a want of energy and a general leucophlegmatic habit. Debility, swelling of the feet and abdomen, hurried respiration, cough, and hysteric symptoms are generally present, and often hectic fever.

Treatment. The indications are, 1st, to restore the tone of the system; 2d, to excite uterine action. The first is to be accomplished by evacuating the stomach and bowels, a generous diet and wine, exercise, particularly on horseback, cheerful company, good air, &c.; tonics, as bark, gentian, quassia, chalybeates, sulphates of zinc and copper, nitrate of silver, inhaling oxygen-gas, mineral waters, cold bathing. The second indication is fulfilled by dancing, frictions, pediluvium, sitting over warm water, compressing the femoral arteries, electric shocks through the pelvis, drastic purgatives, and emmenagogues, particularly cantharides. Matrimony is attended with the greatest benefit. If symptoms of phthisis should arise, the dry vomit of the sulphate of copper, with the myrrh-mix-

ture will be proper. The retention is sometimes caused by imperforated hymen.

MENSES, Suppression of. Amenorrhœa. An obstruction of the menstrual discharge from other causes than pregnancy.

Symptoms. Pyrexia, inflammatory symptoms, pain in the back, head, and loins, particularly at the monthly period; leucorrhœa, costiveness, colic pains, dyspeptic and hysteric symptoms. After some time the blood is thrown off by other channels, as the nose, stomach, lungs, &c. See *Hemorrhage* from those parts. It is sometimes fatal by producing organic disease of the uterus, ovaries and other parts.

Causes. Spasmodic constriction of the extreme vessels, brought on by heat and cold; sudden frights, frequent use of acids, indolence; also general debility.

Prognosis. When brought on by the first causes, draw blood from the arm, if the pulse be full, with much pain and fever; also exhibit the neutral salts and emmenagogues. As soon as the month comes round, keep the patient warm, apply bladders of hot water to the loins and abdomen, and place her in a warm bath or over hot water. Opium may be given by the mouth or in clyster, to relieve the pain and produce relaxation. When the case depends upon general debility, chalybeates and other tonics will be proper, also wine and a generous diet; and, as soon as the strength is somewhat recruited emmenagogues will then generally produce their due effect. Persons subject to this obstruction should guard against wet and cold to the feet.

DIFFICULT MENSTRUATION. Dysmenorrhœa. In this case the discharge is not altogether suppressed, but is attended with much pain and difficulty. It depends on the same causes, and in its treatment, the same principles must be kept in view as in amenorrhœa.

MENSES, Cessation of. This period is often attended with danger, and sometimes brings into action cancer and other organic diseases. It is generally preceded by irregularity in quantity as well as periods of menstruation. Should it occur suddenly, the patient ought to live low, avoid stimulants and excitement, and keep the bowels open with cooling physic. Should there happen vertigo, head-ach, fever, and other symptoms of fulness of the vessels, bleeding generally, or topically, must be employed in addition. If ulcers break out, or other spontaneous discharges arise, they must not be checked without substituting issues or setons. Scirrhus of the arteries, breast, &c.

supervening, require the proper treatment under each head respectively.

MERCURY. *Hydrargyrus.* *Hydrargyri oxidum cinereum*, alterative antivenereal, gr. i. to v. *Hyd. nitrico-oxidum*, (red precipitate,) escharotic. *Hyd. oxymurias*, (corrosive sublimate,) alterative antivenereal, gr. 1-8 to ℥ss. *Liquor hydr. oxymuriatis*, id. ℥j. to ℥ss. *Hydrargyrum purificatum*, the basis of other preparations. *Hydrargyri submurias*, (calomel,) alterative, antivenereal, grs. ℥ to ij. cathartic, grs. ij. to vj. *Hydr. submurias ammoniatus*, (white precipitate,) escharotic. *Hydr. subsulphas flavus*, (turpeth mineral,) alterative and antivenereal, gr. i. to ij. emetic, grs. ij. to iv. *Hydr. sulphuretum nigrum*, (Æthiop's mineral,) alterative, ℥j. to ℥j. *Hydr. sulph. rubrum*, (cinnibar,) grs. x. to ℥ss. *Emplastrum hydrargyri*, discutient, resolvent to indolent tumours. *Pituitæ hydr.* alterative, antivenereal, grs. v. to x. *Pil. hydr. oxymuriatis.* *Pil. hydr. submuriatis*, grs. v. to xv. *Unguentum hydrargyri*, externally by friction to affect the system, ℥ss. to ij. every night. *Ung. hydr. nitratis fortius.* *Ung. hydr. nit. mitius.* *Ung. hydr. nitrico-oxidi.* *Ung. hydr. oxidi cinerei.* *Ung. hydr. submuriatis ammoniati.* These ointments are excellent applications to indolent and ill conditioned sores. In chronic ophthalmia and relaxation of the tunica conjunctiva they are almost specific; also in tinea, herpes, and other obstinate eruptions.

MERCURIAL ERYTHEMA. See *Erythema*.

MESENTERIC GLANDS, Diseased State of. In this disease the glands of the mesentery are diseased and obstructed, so that the chyle is impeded in its rout towards the thoracic duct, consequently the requisite supply of nutriment cannot find its way into the system. Hence debility and emaciation ensue. The disease affecting the glands is most likely scrophula, the sufferers usually wear the emblems of that malady. It is confined to children under the twelfth year. It is very apt to prove fatal.

Symptoms. General emaciation of the body, while the abdomen is enlarged, attended with deep seated lancinating pain. The countenance and whole body exhibit a morbid whiteness, the eyes are glassy and sunk, the nose sharpened, the bowels rather relaxed, the stools bilious and slimy, the mouth beset with apthous eruptions, and the anus frequently excoriated, the appetite is capricious and variable, the child grows fretful and inactive, hectic fever ensues, the abdomen still enlarges, the skin peels off, and the child at length perishes.

Treatment. What is stated under the general treatment of scrophula will be here applicable, as calomel-purge

twice a week with bark, wine, &c., one grain of calomel may also be given every night as an alterative. The diet should consist entirely of broths, arrow root and animal jellies; and, if there be much fever, the warm bath will be proper in lieu of the cold. Air, gentle exercise, sea-bathing, frictions, &c. See *Scrophula*.

METASTASIS. A transposition of a disease from one part to another, as from the extremities to the stomach or head in gout or rheumatism. Such cases are often quickly fatal. Its return to former parts should be solicited by pediluvium, mustard-poultice to the feet, and by giving internally cordials, and resorting to topical bleeding and blistering.

MEZEREON. *Mezereon*. The bark of the root. Alterative, antivenereal. *Decoctum mezereon*, f. 3 iv. to viij.

MIASMA. The matter of effluvia producing contagion.

MILIARY FEVER, and MILIARY ERUPTIONS. See *Fever, Miliary*.

MILK-FEVER. See *Breast, Inflammation of*.

MISCARRIAGE. See *Abortion*.

MOLLITIES OSSIUM. See *Bones, Disease of*.

MONK'S HOOD. See *Aconite*.

MONOMANIA. Permanent delirium, confined to one object or a few. The sufferers are pursued, night and day, by the same ideas and affections, seem to have intelligence and allurements but for a particular object, metaphysical, speculative, ascetic, to which they give themselves with great ardour, profound meditation; sleep little. The source of monomania is in disorder of the moral affections, which react on the understanding. Sometimes they are

I. exalted, gay, excited, expansive, bold. The sufferers laugh, sing, dance, talk inexhaustibly, are bold, rash; nothing seems to obstruct their functions, they think themselves gods, nobles, learned, distinguished for their discoveries and inventions; poets, orators, whose productions must be heard, under pain of their anger; they order, with dignity and protection, those around them, distribute riches to people they meet, pretend to communicate with heaven, to have a celestial mission, show but little or extravagant affection for their dearest friends, pity their ignorance, think them unworthy to share their happiness; are very susceptible, even furious under restraint, irascible, especially at approach of menstruation. Some, for the least cause, or without cause are led on to passion, violence, fury, seize a deadly weapon, knock down the first person they meet, hurt, destroy themselves. Aware of

their condition, they deplore it, warn bystanders to beware, or to prevent them from doing harm. Are they not at this moment lucid? They say they feel inexpressible difficulty in the exercise of their reason, something within, of which they cannot give an account, preceded by heat from the bowels to the head, or burning heat with pulsation within the skull. Some say a false sensation or reasoning determined them to act. In it they present all the signs of a passion arrived to delirium. Volition only is disordered. Often hallucination alone seems to cause their delirium. One heard an internal voice repeat 'kill thyself;' he killed himself, thinking he could not escape a superior power.

The subjects of acute simple monomania have entire understanding on every thing beyond the sphere of their delirium, seem very reasonable till an external impression suddenly wakes it, know how to restrain its expression or dissemble.

Monomaniacs eat much, but sometimes support hunger with a desolating mortal obstinacy; have frequent pains in the bowels, sometimes costiveness; full, hard, strong pulse, warm skin.

Almost always they have experienced disappointments before their disease. Monomania is more common than mania, and in adults. Mortality 1: 16.

MELANCHOLY denotes the temperament in which the hepatic system predominates; predisposition to sadness; and is applied to the

II. form of monomania, answering to *λυπημανια*; chronic, partial delirium, excited or supported by a sad, debilitating, oppressive, concentrated passion. Its course is less energetic, acute, rapid, than the 1st form; lasts longer, oftener ends unfavourably. Melancholics associate false ideas, think them true, reason justly on them.

Melancholy presents two degrees well marked. In one, the most simple and common things seem, to the sufferers, new, singular, designed to torment, hurt them; cold, rain, wind, noise, silence make them shudder with pain and fright; if any thing displeases them, they repulse it obstinately; if their food does not suit them, they suffer nausea, vomit; if they have any thing to regret, they are in despair; if they have any reverse, they think all is lost. Every thing, love, hate, &c. is forced, exaggerated in their feeling, thinking and acting. In the other degree, objects seem to them enveloped in a thick cloud or black veil; they create ridiculous chimeras, associate ideas and

things the most unlike ; entertain presentiments, are dispirited in the midst of all enjoyments.

On objects not relating to the passion which characterizes the delirium they reason and act rightly ; seem to employ their intelligence to strengthen this passion, it is impossible to imagine the force and subtlety of their reasoning to justify their prepossessions and anxieties, they can seldom be convinced, never persuaded. Said three of them, ' I understand what you say, you are right, but I cannot believe you.'---' I understand your reasoning ; were I convinced, I should be cured.'---' An insurmountable power has seized my reason, I can no longer direct it.' Some are aware that they are unreasonable, acknowledge it with mortification and despair, yet their passion constantly returns them invincibly to the same ideas. They are restless, often start from sleep with dreams about the object of their delirium.

The prodigal becomes avaricious, the warrior timid, pusillanimous, the laborious will not work ; libertines accuse themselves with grief and repentance, fearing heaven's vengeance. All are jealous, on their guard against whatever is said or done before them ; speak little, or in monosyllables ; their actions are uniform ; if they move, it is slowly, with apprehension as if to avoid danger ; or quickly, ever in the same direction, as if they were deeply occupied ; keep obstinate silence ; a few are blabbers ; seek solitude that their imagination and affections may exercise and exalt themselves uninterruptedly ; sometimes will not quit bed, squat on the floor, seem to delight in braving every thing which can destroy their organization ; throw aside all food, pass 13, 20, 40 days without eating, though hungry, fearing poison or disgrace, or injury to their friends, or seeking death ; others eat with frightful voracity, yet grow lean and feeble ; wound their hands, fingers' ends, tear off their nails.

Some, overcome by a passion or delirium, otherwise enjoying their entire reason, determined by some motives more or less plausible to themselves, e. g. to remove them from life's troubles, or to prevent separation, intending suicide ; commit the most atrocious acts, murder even objects most dear to them, with calmness and apparent tranquillity : are not afterwards moved or disquieted ; are more calm than before, sometimes seem pleased. Many of them go and declare their crime to the police, or speak of it to those whom they meet, wait to be arrested, beg to suffer capital punishment.

The pulse is generally slow, feeble, trembling, thumping, very hard ; skin dry, earthy, burning, extremities

cold, bathed in sweat; urine watery or thick, some hold it many days: complexion yellow, brown, blackish, very red, pale, nose deeply red, physiognomy wrinkled, uneasy, muscles of the face convulsively tense, eyes fixed towards the earth or to a distance, hollow, sometimes full of fire.

There are very few melancholics whose delirium is not exasperated every two days; many have a strongly marked remission in the evening and after dinner, others are exasperated at the beginning of the day.

Melancholy is a disease of mature age. People of this temperament are tall, have black hair and eyes; slender, strongly marked muscles; narrow, constricted breast; are well fitted to cultivate the arts and sciences, have but little memory, strong ideas, vast conceptions. Men of genius, good or bad, often exhibit this temperament. The hemorrhoidal, nervous temperament; luxury, dissipation, bodily pain, music, poetry, hazardous speculations seem to predispose to melancholy.

Of 482 melancholics, the disease was attributed in

- 110 to hereditary influence,
- 25 . suppressed menstruation,
- 40 . the critical period,
- 35 . consequences of parturition,
- 6 . masturbation,
- 19 . abuse of wine,
- 42 . disappointed love,
- 8 . jealousy,
- 19 . fright,
- 18 . anger.

Melancholics sink almost always under chronic disease, assert they have no pain. Of 176 who died, 62 died under phthisis, chronic pleurisy, it specially attacks silent melancholics; 24 under marasmus, slow nervous fever at evening.

The transverse colon often is found oblique or perpendicular; its left end toward or behind the pubis; sometimes totally relaxed, forming an ear or handle, the middle of which loses itself in the hypogastrium. This may help to explain the hypogastric pain, rumbling of the stomach, so common in melancholy, and costiveness, which sometimes lasts weeks and months. Melancholics' habitation should be well lighted, and they should be forced to live much in the open air. *Esquirol.*

MORTIFICATION. Mortification is of two kinds, viz. that preceded by inflammation, that not. It has two stages, 1st, *gangrene*, when the part is not positively dead, and 2d, when vitality is totally lost, termed *sphacelus*,

Symptoms of gangrene. If preceded by inflammation, there will be a sudden diminution of pain, swelling, tension, and sympathetic fever, a livid discolouration of the part from a yellowish to a greenish hue, fetor, vesicles, or detachment of the cuticle, under which a turbid fluid is effused. There is also, air generated in the cellular membrane of the part, which, on being touched, causes a crepitus.

Symptoms of sphacelus. The part becomes quite black and fibrous, and is destitute of motion, sensation and heat. In both cases, there is great prostration, pale, wild, cadaverous countenance, hiccough; pulse small, rapid, and irregular; cold sweats, diarrhoea, delirium, death. But when proper remedies are timely resorted to, and the constitution has sufficient powers, the mortification is confined to narrower limits, and life may be saved. The disposition to extension of the disease being arrested, the lymphatics begin to throw off the dead mass which they effect by absorbing the particles of matter connecting the dead parts with the living, which being effected, the mortified part falls off, and the wound heals by granulation. The blood forms a coagulum in the vessels leading to the part whereby hemorrhage is prevented. Three kinds of fever are observed in mortification, 1st, the *Sympathetic Inflammatory*; 2d, *Typhoid*, or that attended with extreme debility; 3d, a *Febrile Excitement*, apparently dependent upon disorder in the digestive organs. The common exciting causes of mortification are, violent inflammation of any kind, particularly the erysipelatous, also that of chancre and carbuncle in particular habits. Severe burns, compound fractures, dislocations, contused or lacerated wounds, surgical operations, gun-shot injuries, extravasation of urine into the scrotum and other parts. The predisposing causes are, a peculiarity of the constitution which induces slight affections to become gangrenous, what in others would be very trifling; old age; warm climate, intemperance, eating spurred rye, typhus fever, plague, &c. also bad air and state of atmosphere in crowded hospitals, which frequently causes every wound within the walls to become gangrenous, called *hospital gangrene*. In this instance it seems epidemic.

Causes of mortification not preceded by inflammation. Constriction of a part so as to prevent the return of venous blood, as is seen in strangulated hernia; impediment to the flow of arterial blood to a part as is sometimes seen after tying large vessels for aneurism, &c.; ossified state of the arterics; old age, and extreme debility; pressure on

any part of the body, as the scapula, buttocks, &c. by long confinement in bed from sickness; exposure to cold.

Treatment. The indications are, 1st, to arrest the progress of the mortification; 2d, to promote the separation of the part already mortified. If there exist the true phlegmonous inflammation with inflammatory fever, it will be proper to resort to bleeding, cooling purges, and the antiphlogistic regimen, as in ordinary inflammation; internal and external stimulants would beyond doubt increase the malady. The local applications should consist of saturnine lotions or warm fomentations. But the symptoms must be closely watched, for very suddenly the inflammatory diathesis may subside when such practice would become injurious. As soon as this change has taken place, the strength is to be supported by a generous diet and wine; and, should much debility ensue, bark, cordials and stimulants will be necessary. If the attendant fever be of the typhoid form, the stimulant plan will then also be proper; should delirium come on, musk, camphor, opium, ammonia must be freely given. If diarrhoea, kino, chalk, opium, and other astringents. Severe pain to be alleviated by large doses of opium internally, also externally in form of fomentation. If the prevailing fever be that arising from a disordered state of the digestive organs, as is mostly the case when the erysipelatous inflammation is present, the *primæ viæ* must be speedily evacuated and then the stimulating system adopted. All exciting causes must be removed. Besides the local applications of lead-washes and warm fomentations, the best effects are often derived from the antiseptic and yeast-poultices. Stimulating remedies, as spirits and camphor, brandy, turpentine, &c. are not proper, as they irritate the inflamed margin. Deep incisions, as by some advised to stop the progress of the disease are useless. However, when the line of demarcation is perfectly formed, and the sphacelous mass very fetid, antiseptics may be applied to correct the smell, taking care they do not touch the new granulations. The best application for this purpose is probably nitric acid and water, (a drachm to an ounce.) When nature is unequal to throw off a large slough on an extremity, amputation is necessary, to prevent fatal effects from its irritation. Before resorting to the operation, Pott and most authors agree in directing that the line of separation should be perfectly formed. Larrey, however, and some others say, that when gangrene is the result of a mechanical cause, and the patient's life in danger, that amputation should be performed without waiting for the line of separation.

Success, they say, attends this practice. But when the cause is constitutional, nothing can be more obviously improper than amputating until such cause is removed. The limb is now and then thrown off, by nature's own efforts, at a joint, leaving a very good stump.

In Hospital Gangrene the patient should be removed to another building, and the utmost efforts must be paid to cleanliness, by daily changing the linen and fumigating the apartment.

There is a species of this disease, called by Mr. Abernethy *herpetic* mortification, occurring chiefly on the legs, proving very obstinate, healing at one part and breaking out at another. It depends on a disordered state of the *primæ viæ*, where our remedies must be directed. There is a remarkable kind of mortification, unpreceded by inflammation, described by Mr. Pott, beginning at one or more of the toes, and passing on to the foot, ankle, and leg, sometimes without pain, but generally accompanied with pain the most excruciating. The pain comes on during the night, and abates towards morning. This may continue for some time without any external appearance. At length a small discolouration on one of the toes is observable, and the disease develops itself. It is most always fatal. Persons advanced in years, and those of voluptuous habits are the most liable. Opium in large doses is the only remedy having any control over this affection. Consult *B. Bell's Surgery*. *Pott. Hunter on Inflam.* *Richerson's Nosographie Chirurgicale.* *Larrey's Military Surgery*, &c.

MOTES. No imperfection of sight is more common than appearance of dark motes, of various shape, at different distances, and having no tangible existence. They do not prevent, but incommode sight of the smallest objects. Moving the eye, to bring them into its axis, gives them apparent motion accordingly. Specks on the cornea do not occasion them. After removal of a cataract, a white particle, as large as a small pin's head, moved continually up and down unperceived by the patient, near the pupil's centre.

MOXA. A soft substance, used in the West Indies and by the French for making an issue. It is burnt upon the part so as to produce an eschar.

MUMPS. See *Cynanche Parotidæa*.

MUSCHETOES, *Bite of.* See *Poisons*.

MUSK. *Moschus.* Stimulant, antispasmodic, grs. v. to ℥j. *Mustura moschi*, f. ʒ ss. to i ℥. *Tinctura moschi*, ʒj. to iij.

MUSTARD. *Sinapis.* The seeds. Stimulant, a table spoonful or more in dyspepsia, &c. Externally in cataplasm. Stimulating, sometimes vesicating.

MYOPIA. See *Amaurosis.*

MYRRH. *Myrrha.* (Tree unknown.) A gum-resin. Stimulant, tonic, emmenagogue, antiseptic, grs. x. to 3 ss. *Tinctura myrrhæ*, 3 ss. to i ℥. In gargles for sore throat and relaxation of the gums. *Pilulæ myrrhæ et ferri.* This is Griffith's mixture in a solid form, grs. x. to xx.

NÆVI MATERNI, or *Mother's Marks*, with which some children are born, are of two kinds; 1st, those which are merely red marks or brown specks on the skin, not elevated above the surface, and give no inconvenience; the 2d are small red tumours, which increase in size and elevation; many of which consist of congeries of vessels, which after a while burst and bleed profusely. These have been denominated by Mr. John Bell aneurisms by anastomosis, and require to be extirpated. (See *Aneurism by Anastomosis.*) The supposition that these marks are given by the mother at the moment of conception or by longings during pregnancy is now justly reprobated by every intelligent physiologist.

NEBULA. See *Cornea, Opacities of.*

NECROSIS. See *Bones, Diseases of.*

NEGRO CACHEXY. See *Cachexia Africana.*

NEPHRITIS. See *Inflammation of the Kidney.*

NERVOUS FEVER. See *Fever, Slow Nervous.*

NERVOUS DISORDERS. See *Hysteria, Hypochondriasis, &c.*

NETTLE-RASH. *Urticaria.* An eruption of hard weals or bumps resembling that produced by the stinging of nettles, producing violent heat and itching, and terminating in a desquamation of the cuticle. It is sometimes preceded by fever. It pervades all parts of the body, and continues from a few days to a few months, appearing and receding sometimes even in a few minutes. It does not contain any fluid. Dr. Willan enumerates six varieties of it. Its causes are not obvious, though it is supposed to arise from suppressed perspiration, but more frequently from some irritating matter in the stomach, as it, or a disease very similar, is produced in particular habits by eating almonds, mushrooms, shell-fish, and some narcotic vegetables, as nightshade, &c. It generally yields to mild diaphoretics, if the cause be suppressed perspiration; to emetics and purgatives, if the stomach be in fault; to alteratives, and to an infusion of serpentaria, (two drachms

to a pint of water,) if the disease has become chronic. See *Cook's Practical Treatise*, p. 209.

NEVUS. A mole or peel on the skin.

NIGHT BLINDNESS. *Nyctalopia*. See *Amaurosis*.

NIGHT-MARE. *Incubus*. This disease comes on during sleep with a weight and oppression at the chest; the patient believes that some living being has taken its position there. He is much terrified, his respiration difficult, the voluntary muscles paralyzed. He makes many efforts to speak and move, without effect. The symptoms increasing, he becomes more conscious of his situation, but his terror and oppression still increases. At length, after a violent effort, he recovers, jumps out of bed much alarmed, suffering violent palpitations and great anxiety. In cases less perfectly formed the patient is only conscious of frightful dreams, or believes he has seen a vision or been in a trance.

Causes. Tendency to hypochondriasis; dyspepsia, intense study, flatulence, anxiety, pregnancy, late suppers, &c. Its proximate cause is supposed to be a spasmodic constriction of the diaphragm and muscles of the chest. It is not attended with danger. The male sex is mostly liable.

Treatment. The stomach and bowels to be emptied by an emetic and cathartic, and their tone to be restored by stomachic bitters, chalybeates and the like, as in dyspepsia. All exciting causes to be obviated, the supper should be very light, and warm carminatives taken on going to bed. If it should be attended with despondency, cheerful company and journies, will be advisable. Some person should sleep near the patient, to assist in awaking him. See *Waller's Treatise on Incubus*.

NIPPLES. *Excoriated*. (*Papillæ excoriatæ*.) This is caused by the constant moisture of the part, and can be generally removed by a wash composed of two or three grains of the acetate of lead to an ounce of rose water, or a solution of alum or borax, or the nipples may be anointed with a composition of half a drachm of borax, and half an ounce of honey thickened with a little flour. Ulcerations upon the nipples are speedily healed by the daily application of caustic. Artificial nipples are often to be found in the shops, and should be used in very painful cases.

NITRE. See *Potass. Nitric Acid*. See *Acid*.

NOCTURNAL EMISSIONS. See *Semen*.

NODE. A swelling of a bone, a thickening of the periosteum or fascia, or a tumour on a tendon, from a venereal cause. See *Venereal Disease*.

NOLI ME TANGERE. An herpetic disease affecting the skin and cartilage of the nose. Mr. Hume considers it somewhat allied to cancer, but differing from it by not contaminating the adjacent parts by absorption, extending itself by contact only. It may extend to the palate, lips, &c. It is frequently very uncontrollable. It begins with small superficial spreading ulcerations on the alæ of the nose, more or less concealed beneath furfuraceous scabs, extending oftentimes in defiance of all remedies.

Treatment. Mild applications are useless. Arsenic has been found the most efficacious remedy, in the usual doses. The part should be wetted with the following lotion. R. Acid. Arsen. gr. iv. Alcohol. dilut. ℥s. Aqua ℥ iv. m. Plummer's Pill and the decoction of Sarsaparilla may be also exhibited, also the Ung. Nit. Hydr. used, though unctious applications are not generally proper.

NOSE, Bleeding. See *Hemorrhage from the Nose.*

NOSTALGIA. Despair under separation from one's country, from the object of one's first sensations; it overcomes all other affections, and is sometimes followed by suicide. Mountaineers, who descend into cities, are most liable to nostalgia.

Treatment. The habit should be put into a proper state by attending to the digestive functions and, if it be impossible to return the sufferer to his native soil, an imperious and sacred duty is obligatory on them with whom he sojourns, to sooth and solace him.

NUT GALLS. See *Galls.*

NUTMEG. *Myristica.* The kernel of the fruit. Aromatic, cordial, carminative gr. v. to ℥j. *Oleum Myristicæ*, (oil of mace) ℥i to v.

NYMPHOMANIA or **FUROR UTERINUS.** A melancholic delirium of women; their actions are unrestrained, by obscene language and gesture they solicit men to their favours.

NUX VOMICA. See *Vomic Nut.*

OAK, Black. *Quercus tinctoria.* The bark.

OAK, White. *Quercus Alba.* The bark.

OATMEAL. *Avenæ Farina.* A decoction of this article forms that well known diet for patients, *Gruel.*

OBESITAS or *Obesity.* See *Corpulence.*

OBSTIPATIO or *Obstipation.* See *Constipation.*

ODONTALGIA. See *Toothach.*

CEDEMA. By this term is understood a swelling caused by an extravasation of aqueous fluid into the cellular membrane, in any part of the body, more particularly the lower extremities. It is often entirely local, for when

general, attended with a dropsical diathesis, the disease becomes anasarca. The part is usually cold, pale, inelastic, and retains the mark when pressure is made upon it. Its causes are various, and the treatment must conform to them. If it arises from general debility, as it often does after long fevers or other diseases, the patient should take nutritious food, wine, tonics, moderate exercise, use sea bathing, &c. and resort to frictions, rubefacient liniments and bandages of flannel, or a laced stocking. The limb should be kept horizontal, particularly towards night, when the swelling is apt to increase. If it arises from topical debility of the vessels alone, as in cases of sprains, bruises, &c. the local treatment just specified will be applicable; if from pressure on the veins by tumours as aneurism, &c. these must be removed; if from pregnancy, it will depart at the period of parturition; if from a collection of pus (as œdema is often seen over the surfaces of abscesses,) the matter must be evacuated; if it is attended with inflammation, leeches, saturnine lotions and saline cathartics; if with erysipelas, the proper treatment for erysipelas.

ŒSOPHAGUS. *Diseases and Injuries of.* 1. *Inflammation.* This part is liable to common inflammation. It is attended with violent heat, pain and throbbing, with such pain and difficulty in swallowing that the disease has been mistaken for hydrophobia. But in this case no alarm or spasm is experienced on seeing or hearing the agitation of water as in hydrophobia, and no inconvenience is felt until the very moment of deglutition. The treatment is that of inflammation in general, particularly general and very copious bleeding, saturnine lotions and blisters to the neck.. The bowels to be opened by clysters, and nutriment supplied in the same way. 2. *Stricture.* The œsophagus is liable to three species of this affection; 1st, the common stricture, analogous to that in the urethra; 2d, *scirrhus*; 3d, *spasmodic*. In the common stricture there is a difficulty of swallowing, particularly solids which are, when the stricture is great, thrown back with great force, attended with pain, which extends along the fauces to the basis of the skull, and through the Eustachian tube to the ear. The pain will sometimes return without any attempts being made to swallow. The stricture may be situated at any part of the tube, though more frequently it is high up, and after some continuance, is very frequently attended with ulceration below it, as well as near to the stomach; probably caused by efforts made in retching, and the loss of the natural secretion of the part. If not relieved it goes on increasing until no

solid or even fluid can pass into the stomach, and the patient perishes from want of food and consequent dyspepsia.

Treatment. As the stricture is frequently high up and consists only of a transverse fold of the membrane lining the tube, the daily use of a proper sized bougie is often very serviceable, it should be worn several hours, and gradually increased in size, but the propriety of the caustic bougie seems very questionable.

In the 2d species, the stricture will mostly be formed just behind the thyroid or cricoid cartilage. It begins with a thickening of the membranes, which extends to the surrounding parts, with the deep lancinating pains peculiar to scirrhus, and at length involves the whole in cancerous ulceration. It is incurable. If a bougie be passed, it meets with obstruction on first entering the ulcerated part, and on passing from that to the sound part below, with a sensation resembling two strictures. Calomel, cicuta, &c. may be given as directed under cancer. In the outset, before ulceration has commenced, topical bleeding may retard its progress. Mr. Home says the bougie passes with greater facility, if the tongue be brought out of the mouth; and if the bougie extends down a distance of eight inches from the incisor teeth without obstruction, that is then beyond the usual seat of stricture; but if it does meet with obstruction it is to be held steadily against it until it has passed. The size and seat of the stricture can be ascertained from the indentations made upon the bougie.

Of the 3d species. In spasmodic stricture there is a periodic, sudden difficulty in swallowing, lasting indefinitely, a few minutes or the whole day. The stomach and bowels should be evacuated, and blisters applied to the neck and throat. The daily use of the bougie is even here useful. In all bad cases the hollow bougie must be introduced by the nose through which wine and rich soups are to be injected for the patient's support. Nutritious clysters should also be often given. Issues, cold bathing and other antispasmodics may be resorted to. Consult *Mr. Home on Stricture, vol. 1, edit. 3d; also Warner's Cases in Surgery.*

POLYPI. See *Polypus.*

Foreign bodies in the œsophagus. Pieces of meat, crusts of bread, &c. occasionally stick in this tube, but by drinking a little water, they pass into the stomach. If a piece of bone, or money, stones, pins, needles, &c. become obstructed, prompt relief is requisite. We must instantly attempt extraction with the fingers or curved forceps or a

hook. If we fail, and the body is round, and not otherwise injurious, we may attempt to push it into the stomach with a probang, following it with oleaginous draughts, instead of exciting vomiting, which is certainly not without danger. If the substance from its figure will not admit of this, it can now and then be moved by causing the patient to swallow a piece of dry sponge attached to a string. Then he is to drink a little water to cause the sponge to expand, when it is to be slowly drawn up with a lateral motion. The process may be repeated with a larger piece of sponge if necessary. If these means fail, and the symptoms are not very urgent, if the patient can swallow and breathe with tolerable ease, the offending substance may be left to nature, when in a day or two it will be discharged by suppuration, the surgeon at the same time bleeding and exhibiting oily purgatives. But should respiration be dangerously affected, tracheotomy must be performed. In a few cases death will certainly ensue unless the body be removed, to prevent which, it is then admissible to perform œsophagotomy. In passing instruments into the œsophagus we should avoid touching the epiglottis by pressing them well back against the vertebræ.

Wounds of the Œsophagus. See *Wounds of the Neck.*

OLIVE OIL. *Olivæ oleum.* The oil of the fruit. Laxative, antidote to acrid poisons f 3ij. to f 3j. Externally emollient; also emollient and laxative in clysters.

OMPHALOCELE. *Hernia at the Navel.*

ONYCHIA. *Whitlow.*

ONYX. See *Eye.*

OPACITIES of the Cornea. See *Cornea.*

OPISTHOTONOS. See *Tetanus.*

OPIUM. The concrete juice. Sedative, anodyne, antispasmodic in the most complete and powerful manner, gr. ℥ to ij. or more. *Acetum Opii*, *Pilulæ Opii* 1, 2, or more. *Tinctura Opii* ℥xx. to xl. *Vinum Opii* (Sydenham's Laudanum.) ℥ xv. to xxx.

ORANGE PEEL. *Aurantii cortex.* The rind of the fruit. Aromatic, stomachic, gr. x to 3j. *Aquæ Aurantii Corticis*, 3j. to 3ij. *Syrupus Aurantii Corticis*, 3j. to ij.

ORCHOTOMIA. The operation of extirpating the testicle.

QSCHEOCELE. *Scrotal Hernia.*

OSTALGIA. *Ear-ache.* See *Inflammation of the Ear.*

OVARIA, *Dropsy of.* See *Dropsy.*

OZENA. An ulcer situated in the nose, discharging a fetidpurulent matter, sometimes accompanied with caries

of the bones. It begins with a slight tumefaction and redness about the ala nasi, attended with a mucous discharge from the nostril. The discharge gradually becomes purulent, is most frequent in the morning and is attended with sneezing and little loss of blood. It extends round the ala to the cheek. Ozena is mostly dependent on a scrophulous or syphilitic taint. It must not be confounded with disease of the antrum.

Treatment. The scrophulous or syphilitic taint must be removed by the proper remedies, and the ulcer be washed with R. Acid. Arsenios. gr. iv. Alcohol. dil. ℥j. Aquæ. ℥iv. m. vel R. Hydr. Oxym. gr. iv. Aquæ calcis ℥iv. m. &c. Consult *Pearson's Principles of Surgery*.

PALPITATION of the Heart. This is a very common effect after any sudden exercise, fright or passion, and departs soon after the cause ceases to operate. But it is often so violent and frequent as to amount to a disease. In such cases it makes its attacks at uncertain intervals, with vehement and irregular motion, which increases to such a degree, that it can be often seen and heard. Dyspnœa, a purple hue of the lips and face, anxiety, &c. are attendant symptoms. It is sometimes fatal. Its causes are numerous and the treatment must be in conformity to them. Accordingly, if it arises from organic disease, as a morbid enlargement of the heart or large vessels, diminution of the cavities of the ventricle, polypi in or ossification of the aorta or its valves, malformation, &c. it is incurable; and we can only recommend the patient to avoid all sudden passions or violent exertions, to keep the bowels open. If it arises from plethora, bleeding, saline cathartics, and the antiphlogistic regimen: if from debility, tonics, bark, chalybeates, cold bathing and the like: if symptomatic, if hysterica or other nervous disorders, they must claim primary attention; if from worms, anthelmintics must be used.

PALSY. Paralysis. There are several species of this disease as *partial*, when a certain muscle or set of muscles only are affected; *hemiplegia*, when on one side of the body; *paraplegia*, when the lower half of the body transversely; and the paralysis from poisons or by working among lead. Hemiplegia generally attacks the left side.

Symptoms. Abolition of voluntary motion or sensation, or both, often with sleep, and slow, soft pulse, sometimes preceded by torpor, vertigo, numbness, coldness and sometimes heat of the part about to be paralyzed. If the head is much affected, the mouth will be drawn on one side, and memory, judgment and speech much impaired. After the

limbs have been long affected, they become flaccid and the muscles waste. It mostly occurs in the aged and infirm; and in imperfect recoveries there often remains a trembling of one or more of the limbs called *shaking palsies*.

Partial paralysis does not take its origin from the brain in all cases but from the nerve which goes immediately to the part, or from the spinal marrow which has received some injury, at, or above, where the nerves comes off. This, in a manner, renders it a local affection. The spinal marrow, from being of the same organization, and having similar coverings as the brain, is liable to the same diseases, as inflammation, suppuration, ossifications of its blood-vessels, &c.

Causes. Compression, congestion or effusion into the brain, as apoplexy, impaired nervous energy, obstruction of nervous power in its course to the parts affected, either by tumours, distortions or injuries of the spine or thickening of its ligaments, as in rickety children, luxations, fractures. Also obstruction of customary discharges, handling lead, inhaling the noxious fumes of metals, general debility, especially when brought on by severe study, intemperance, debauchery, disorder of the *prima viæ*. *Diagnosis.* From apoplexy, by softness of the pulse, absence of stertor, and loss of power being only partial. *Prognosis.* Favourable when the attack is mild, confined to the extremities, and the patient feels a warmth and prickliness of the part affected, diarrhoea. *Unfavourable.* The reverse of these, the patient being aged or previously much debilitated; supervening upon apoplexy; or if caused by irreparable injury of the spinal marrow; the brain, lungs, &c. being affected.

Treatment. If the patient be plethoric, the pulse good with appearance of fulness in the brain, general and topical blood-letting will be proper, until these symptoms are removed. Also, purgatives, diaphoretics, and the antiphlogistic regimen; blisters. If, on the contrary, the patient be very decrepit, the pulse weak and slow, we must administer stimulants, as ammonia, ether, &c. The diet should be nutritious, aromatic, and well seasoned. Wine and even brandy may be allowed; besides cinchona, stomachic bitters, nitrate of silver, and the arsenical solutions in obstinate cases. The local applications are to consist of, the warm bath, blisters and sinapisms, rubefacient and stimulating liniments, frictions with the flesh-brush, electricity, galvanism, caustic issues upon the limbs affected. If the *primæ viæ* be disordered they must be speedily regulated by emetics and purgatives. In cases

brought on by working among lead, Dr. Clutterbuck experienced the best effects from the internal use of mercury. Dr. Pemberton materially benefited paralyzed and contracted limbs, from the same cause, by directing the patient to wear a splint upon the affected arm, and to carry it in a sling for the purpose of giving mechanical support, and taking off the sense of weight always felt in those cases, and which is supposed to retard the recovery. Consult *Dr. John Reid on Nervous Diseases*. *Dr. Clutterbuck's Pamphlet*, *Dr. Pemberton's Treatise on the Abdominal Viscera*.

PARACENTESIS, or Tapping. The operation for puncturing or tapping the abdomen or thorax in cases of dropsy, empyema, tympanites, &c.

Of Paracentesis Abdominalis. In case of ascites, the operation being determined on, and the fluctuation obvious, the patient is to be placed in an arm chair, with a broad bandage or sheet around him. A small incision is to be made, through the integuments, with a lancet or scalpel, about half an inch in length, midway between the umbilicus and the symphysis pubis. A trochar and canula is next to be gently passed through the incision into the abdomen. As soon as the point of the trochar is within the cavity, it should be withdrawn; when the fluid begins to flow, the canula can be insinuated as deep as may be deemed requisite. The sheet is to be drawn tight, as the fluid flows, and worn for some days after the operation, to prevent the fainting and other ill effects often arising from the pressure being suddenly taken off from the viscera. The fluid is occasionally obstructed, while flowing, by a piece of the omentum getting before the canula, which may be easily removed by passing a probe through the canula. In ovarian dropsy the operation is precisely the same, unless the cyst should be more prominent at another part of the abdomen, when it must be punctured there. Sometimes the fluid is very viscid, when a larger canula may be employed. When there are more cysts than one, all must be tapped that can be conveniently and safely reached. From this, paracentesis for tympanites differs nothing materially. The wound requires no other dressing than a compress and a strip of adhesive plaster.

Of Paracentesis Thoracis. When, from collections of water, pus, extravasated blood or air, it is necessary to resort to this operation, an incision should be made about two inches long, with a scalpel, between the sixth and seventh true ribs, taking care of the intercostal artery, which runs in a groove upon the lower edge of each rib.

The patient should be put in a convenient position for the accumulated fluid to discharge itself. A canula may be introduced for the fluid to pass, if judged necessary, which may also be retained in the opening, by means of sticking plaster, to give exit to future collections, if deemed desirable. Some prefer the trochar and canula, but it is not entirely free from danger of wounding the lungs. The pleuras forming separate cavities, the opening must of course be made in that in which the fluid is supposed to be accumulated. But should both contain fluid one must be operated upon and the wound allowed to heal first, as operation on both sides at the same time would produce a collapse of both lungs and probably suffocate the patient. Consult *Le Dran, Sharp, Sabatier, S. Cooper, &c.*

PARACUSIS. *Deafness.*

PARAPHRENITIS. A delirium which follows the state in which the diaphragm is thought to be inflamed.

PARAPLEGIA. *Paralysis.*

PARAPHYMOSIS. See *Phymosis.*

PARONYCHIA. See *Whitlow.*

PAROTID DUCT, *Wounds of.* See *Fistula, Salivary.*

PECTORALS. Such medicines as soften and allay tickling coughs and irritation of the fauces. Oils of almonds and olives, spermaceti, linseed, infusion, honey, liquorice, gums acacia and tragacanth, balsam of tolu, opiated tincture of camphor.

PEDILUVIUM. This is a warm bath for the feet. It is very useful in headach, or when there is febrile action, to excite diaphoresis, particularly if assisted with warm drinks, sudorifics. It should be at blood heat or 98° Fahrenheit, the feet and legs immersed, for the space of ten minutes, when the patient should go to bed.

PELLITORY OF SPAIN. *Pyrethrum.* The root. Stimulant. Chiefly used as an application in odontalgia.

PENIS, *Amputation of.* This operation is only necessary in cancerous and some fungous sores. It is performed by making a circular incision through the skin, with a small knife, about a finger's breadth from the sore. The corpora cavernosa being exposed, the body of the penis is to be cut through at one stroke, exactly in a line with the former incision, so that no flap of integument shall remain, as that would impede the flow of urine. It is generally necessary to tie three arteries, one in the body of the penis, and one in each corpus cavernosum. A compress of lint confined with sticking plaster is all the dressing required. Should there come on after hemorrhage, cold water or pressure applied to the stump will probably

check it ; if not, the vessel must be sought for and tied. Some place a piece of hollow bougie in the urethra, to prevent its closing, but Mr. Pearson says this is useless as well as improper. Consult *Hey's Prac. Surg.* *Warner's Cases*, and *Pearson on Cancer*.

PEPPER, Black. *Piper*. The berries. Stimulant, carminative, gr. v. to dj.

PEPPER, Cayenne. *Capsicum*. The fruit. This is a most powerful stimulant, and is given in malignant fevers, when the powers of life are much exhausted, in doses of gr. v. to x. Also in gargles, for cynanche maligna. *Tinctura Capsici*, dose f ʒss. to j. *Tinct. Capsici et Cantharidum*. Externally as a liniment to produce vesication.

PEPPERMINT. *Mentha piperita*. The herb. Carminative, stimulant. *Aqua menthæ piperitæ*, f. ʒj. to ij. *Oleum menthæ piperitæ* ℥i. to iij.

PERICARDITIS. See *Inflammation of the Lungs*.

PERIPNEUMONY. See *Inflammation of the Lungs*.

PERINÆUM, Abscess in. See *Urinary Abscess*.

PERITONITIS. See *Inflammation of the Peritonæum*.

PESSARY. This is an instrument deposited in the vagina, for the purpose of keeping up a prolapsus of the uterus or vaginal hernia ; it is made of cork, sponge, ivory, &c. ; the least objectionable, is probably made of boxwood. Dr. Denman's is composed of this material, is globular and excavated to render it light. Dr. Clarke's is oval, and flat, also of boxwood, about a quarter of an inch thick at its external surface, and thinner towards the centre when there is an aperture for the lodgement of the os uteri. In applying it, one should be chosen of a size corresponding to the vagina. It should be as large as the part will admit, without pain. It should be frequently taken out and, as well as the vagina, washed. The French recommend pessaries composed of linen covered with wax. See *Journal de Medecine*, Tom 34.

PESTIS. See *Plague*.

PETECHIA. Small spots on the skin, ulcerated and resembling a flea-bite. They spread to a large size, grow purple or black, and indicate in fevers vast diminution of the animal powers, and of course are a very inflammable symptom. Dr. Armstrong says, that, when they appear of a red colour, they indicate debility from increased action, when dark coloured, debility from diminished action ; and when quite black great putrescency.

PHAGEDÆNA. An ulcer which is prone to spread, destroying the adjacent parts.

PHARYNGOTOMY. An operation for opening Pharynx.

PHARYNX, *Inflammation of.* See *Cynanche Pharyngea*.

PHLEBOTOMY. The operation for Bleeding.

PHLEGMASIA DOLENS. *Symptoms.* A firm, glossy, tense, elastic, painful, sudden swelling, of a pale white colour, which attacks the hypogastric or inguinal region, the loins, nates, groin, labia pudendi, thigh, leg, and foot, preceded by rigours and pyrexia. After a few days, the febrile symptoms, as well as the pain, heat and swelling diminish, leaving the patient much debilitated, and the limb stiff, heavy, benumbed, and weak; which state, as well as the swelling, seldom if ever entirely departs. Mr. White states, that the disease is rarely fatal, nor does it terminate in suppuration or gangrene. Dr. Hull, however, has seen all these consequences. Occurs to lying-in women, though Dr. Thomas has seen it in an aged woman, and of course unconnected with pregnancy. It sometimes happens that the other limb is attacked in this way, and goes through the same course. The disease seems to be local.

Causes. A morbid state of the lymphatics on the affected side, about which authors differ. Mr. Tyre and Dr. Deaman believe it to be an inflammation of the trunks of these vessels, excited by the gravid uterus, or absorption of acrimonious matter.

Treatment. If there exists much fever, and the patient be of a robust habit, bleeding, purging, diaphoretics, and the antiphlogistic regimen; also opium to allay irritation, should that occur. But if the woman be of a lax habit of body, has lost much blood from flooding, and the pulse be weak, after removing the contents of the stomach and bowels, tonic bitters, wine, and a generous diet will be proper. To promote the absorption of the fluid, diuretics are recommended. Mr. Tyre and Dr. Hull advise mercury, but Dr. Thomas seems doubtful of its efficacy, particularly in debilitated habits.

The local Treatment. If there is much pain, heat, or appearance of inflammation, leeches will be proper, together with fomentations of hot vinegar, which, with keeping the bowels open, Dr. Thomas says, is a very successful practice in one of the principal lying-in hospitals in London. If these means fail, he recommends sedative and discutient applications, as a solution of muriate of ammonia in vinegar, (an ounce to a pint) or solution of lead. Also a liniment composed of a drachm of camphor, dissolved in an ounce of olive oil with ten grains of opium, used wet and morning. Relief has also been obtained by applying a poultice impregnated with tincture of opium.

A succession of blisters is found useful in draining off the effused fluid. After the active symptoms have abated, frictions, bandages, exercise, cold bathing, rubefacients, electricity, &c. will be proper. Consult the authors mentioned on this subject.

PHLEGMON. See *Inflammation*.

PHRENITIS. See *Inflammation of the Brain*.

PTHISIS, PULMONALIS. See *Consumption*.

PHYMOSIS and PARAPHYMOSIS. The first of these affections, is a closing of the prepuce over the glans penis, so that it cannot be drawn back : the second, a constriction of it behind the glans, so that it cannot be drawn forward. The proximate cause of both, is an effusion into, and thickening of the cellular membrane between the two layers of the prepuce, brought on in consequence of inflammation arising from chancre, gonorrhœa, irritation of the matter secreted by the sebaceous follicles under the prepuce, want of cleanliness, and, in a few cases, urinary calculi which concrete by the urine getting under the prepuce ; violent copulation, &c. The inflammation is frequently of the erysipelatous kind. There is often much œdema. The inflammation often runs on to suppuration and gangrene.

Treatment. Leeches, saturnine lotions, saline cathartics, rest, horizontal posture, and, at night, an emollient poultice. Saturnine, and other washes should be frequently injected under the prepuce with a syringe. If chancres be the cause, we may inject the black or yellow washes, but on no account should attempts be made to draw back the skin behind the glans, as that would constitute a paraphymosis, except for the removal of sebaceous matter or calculi when these are ascertained to exist. If matter be collected behind the glans, and cannot make its escape, a perforation may be made through the prepuce, through which lotions may be injected. When the chancres cannot be made to heal, or when gangrene is threatened, it is usual to perform the operation for the liberation of the part. This is done by passing a bistoury under the foreskin and slitting it up in a line with the pubes as far as may be judged proper. But as this leaves two flaps or angles, modern surgeons perform the operation of circumcision, which is effected by drawing the skin forward and enclosing transversely, with a pair of forceps, as much as may be deemed proper to remove : the surgeon then with one act of the knife, takes off the whole circle ; and if the inner layer of the prepuce should still be too tight, it may be *slitted* up with a curved knife. The two layers are then to be united with a fine suture. The hemorrhage is

not alarming. Mr. S. Cooper is of opinion that no operation should be performed in this case, for that it will always yield to other remedies. Phymosis is sometimes congenital, and, in consequence of inflammation, adhesions may take place between the prepuce and glans, which may be very difficult to remove. In most cases, however, the phymosis departs towards the age of puberty. In urgent cases, a small dilatation or circumcision may be proper to give exit to the urine.

Of Paraphymosis. When the prepuce, in cases of phymosis, has been drawn back, or when in cases of natural paraphymosis, swelling, inflammation and constriction have come on, prompt relief is necessary. The proper practice is to reduce the paraphymosis immediately. To effect which, the surgeon should, (having previously well affused the part with cold water, which lessens its sensibility,) make pressure upon the glans with his fingers four or five minutes, in order to diminish its size by squeezing the blood out of it. The two thumbs are now used for pushing back the glans, and the fingers for bringing the prepuce forwards. If this fails, we are to resort to leeches, cold washes, poultices, purgatives, &c. and then make another attempt at reduction. Should this again fail, which is rarely the case, when skilfully attempted, the stricture is to be divided, with a scalpel, longitudinally with the penis. Symptoms of approaching gangrene, however, will alone justify this last procedure. Consult *Hunter on Venereal Disease*.

PILES. See *Hæmorrhoids*.

PIMENTO. *Pimenta*. The berries. Aromatic stimulant, carminative, grs. xv. to ʒss. *Oleum pimentæ*, ℞ iij. to v.

PIMPLED or BLOTCHED FACE. *Acne*. A very obstinate and troublesome eruption in the form of tubercles, occurring almost entirely upon the face, having a regular succession of growth and decline, and making its invasion from puberty to the thirty or thirty-fifth year, and principally in the male subject. Dr. Willan enumerates four varieties of acne, viz. *A. simplex*, *A. punctata*, *A. indurata*, *A. rosacea*.

PINE-RESIN. *Resina Pini*. *Ceratum resinosum*. *Cerat. resin. compositum*. These are good digestives. *Emplastrum resinosum*, (adhesive plaster,) for ulcers, and recent wounds, to promote union by the first intention.

PINK, Carolina. *Spigelia*. The plant. Anthelmintic, ʒss. to ʒij. *Infusum spigeliæ*, f. ʒj. to iv.

PITCH, Burgundy. *Pix Abietis.* The prepared resin. Used as a stimulating plaster. *Emplastrum resinosum compositum*, (warm plaster.)

PLAGUE. *Pestis.* This is a very putrid, contagious dangerous fever, attended with buboes, carbuncles, petechiæ, &c.; indigenous in Turkey, Egypt, and the eastern shores of Africa. The following are some of the various observations made by different writers on this disease. McGregor in his Medical Sketches says, that the plague exhibits considerable varieties at different places, and under different circumstances. Thus when it made its appearance in one part of the army, which he accompanied from India to Egypt, it exhibited from the outset a low typhoid character; when among those encamped upon marshy ground, an intermittent and remittent; when in the cold, rainy season of December and January an inflammatory; when crossing the isthmus of Suez and at other places a mild continued form was obvious. Larrey, who was surgeon in chief to the French army in Egypt at the same period, remarked that the plague was more frequent and formidable during the south winds, but that during the north or north-east winds, it was diminished, or nearly suspended. He observes too that men with free suppurations, from wounds or issues, generally escaped infection. Sir Robert Wilson who was upon the same spot states that the plague is most prevalent after the recession of the overflowings of the Nile, when a quantity of slimy mud is left upon its banks, the mephitic exhalations from which give rise to the disease in that place. From his statements it would appear, that a moist atmosphere is favourable for its production and propagation, while a dry air evidently had a happier and contrary effect. Febrile moisture too, according to Sir James McGregor, from the body of an infected person seem to be a powerful agent for propagating the disease, while a dead body did not seem to convey it at all. All authors agree in stating that oil men, tanners, soap boilers rarely if ever imbibe the plague; women and children do not so readily become infected as robust men. Persons exposed to vicissitudes of atmosphere as bakers, cooks, smiths, &c. are particularly liable. The infection seems to enter the system through the lymphatics of the surface; hence, why the lymphatic glands are affected in the form of bubo, hence too, why dealers in oil resist the infection. Many are of opinion, and among them Sir James McGregor, that the plague is communicated by contact alone. At all events, it is fully proved that the contagion extends only to a very short distance from the infected body. All authors agree that pu-

trid fish or other animal substance, damaged grain, uncleanliness, noxious exhalations, &c. will engender the disease in climates favourable to its production. Also, that infected clothes, merchandize, &c. will convey the disease to climates which do not produce it naturally, and thus spread the disease among the inhabitants. Hence the necessity of quarantine laws.

Authors enumerate several species of plague; but Sir Brook Faulkner, who had much experience at Malta a few years ago, admits of only three.

Symptoms. Of the first species. Rigors, pain in the back, the energy of the brain and nervous system much impaired, indicated by coma, slow drawing or interrupted utterance; the tongue is white, but not loaded, and usually clean towards the centre and apex; the anxiety is great, the countenance pale, stomach extremely irritable and the strength much impaired. This was observed to be the most fatal species, and the patients often died in a few hours from the attack with petechiæ.

Of the 2d species. Here the state of the brain and nerves is the reverse from the former, there being a high degree of excitement, pain in the head, thirst, countenance flushed and the utterance hurried. Pain in the back and rigors in the outset; epistaxis not unfrequent. Glandular swellings come out tardily and recede without any remission of the symptoms. Carbuncles arise in different parts of the body, which soon become gangrenous. Severe and constant delirium and death takes place in two or three days, though sometimes he may linger to the seventh. This species is very numerous and nearly as fatal as the preceding. In some patients there was an appearance of despair and horror in the countenance which baffled all description.

Of the 3d species. This resembles the 2d, but the symptoms are quite mild and the brain but little affected. Buboës and other tumours appear and rapidly proceed to suppuration, and, with proper treatment, the patient generally survives. The earlier buboës appear and the sooner they suppurate, the fairer the prospect. Cases without buboës are always dangerous, so too, when petechiæ, hæmorrhage and diarrhœa are present. When buboës do not adhere at their basis it is regarded as a favourable symptom.

Treatment. Upon the very first indications of the disease, an emetic should be administered, arresting the vomiting however with the effervescing draught and opium, if it should operate too long. Gentle laxatives should next be administered and, should purging prove too

severe or diarrhœa at any time supervene, it must be checked with opium, kino and other astringents. Gentle diaphoretics next become proper. Camphor is much recommended in plague. Opium is proper to allay irritation and produce sleep. The cold affusion is also advised. Most writers have given their opinion against bleeding; but Dr. Armstrong considers it a disease of excitement and congestion, and urges bleeding. If a crisis takes place, bark is to be liberally given to prevent a relapse. If putrescency, antiseptics are to be used as in typhus gravior. Salivation has been found useful. The buboes and carbuncles should be brought forward by all possible means, as fomentations and poultices. Inoculation for the plague has been resorted to, with a view to render the disease milder, but from the experiments which have been made, and from the same person being liable to more attacks than one, its utility is certainly very questionable. Consult the authors mentioned.

Of Prevention. All persons employed about the sick should avoid placing themselves where a stream of air may blow the effluvia from the patient on them, they should seldom come in contact with them, pay strict regard to cleanliness both of their persons and the sick, should remove from the apartments all matter likely to become putrid, and frequently fumigate. An oiled silk dress was found quite an armour by Sir Brook Faulkner. The linen should be daily changed. Temperance to be strictly observed and occasionally tonics taken. Imbuing the linen with salt water before putting it on is recommended, also to keep issues or perpetual blisters discharging, and olive oil rubbed over the body. Should the disease be unfortunately imported into a healthy country, all infected persons should be conveyed to a lazaretta, and guards placed around to prevent communication. In a paper read before the Royal Society of London, Jan. 1816, it appeared after many experiments that the best method of disinfecting letters, &c. is to expose them to the fumes of burning sulphur, mixed with the nitrate of potass.

PLICA POLONICA. See *Hair Plaited*.

PLEURITIS. See *Inflammation of the Lungs*.

PNEUMONIA. See *Inflammation of the Lungs*.

PODAGRA. See *Gout*.

POISONS.

TOXICOLOGICAL TABLES,

In which are exhibited at one view the Symptoms, Treatment, and Modes of Detecting the Various Poisons, Mineral, Vegetable, and Animal; according to the latest experiments and observations. By a member of the Royal College of Surgeons in London.

MINERAL POISONS.

ARSENIC.

ARSENIOUS ACID, OR WHITE ARSENIC.

ORPIMENT, OR YELLOW ARSENIC.

REALGAR, OR RED ARSENIC.

Symptoms. An austere taste, fetid breath, ptyalism, constriction of the pharynx and œsophagus, hiccough, nausea, and vomiting of brown or bloody matter; anxiety and faintings, heat and violent pain at the pit of the stomach, stools black and offensive, pulse small, frequent and irregular; palpitations; great thirst and burning heat; breathing difficult; urine scanty, red, and bloody; delirium, convulsions of an epileptic character, and death.

Treatment. Vomiting to be excited or encouraged by large draughts of sugared water, linseed tea, or other emollient fluids. Lime water, or chalk and water, may be drank freely if the arsenic has been taken *in solution*. Fat, oil, vinegar, charcoal powder, alkaline sulphurets, and vegetable decoctions, which have been recommended, are worse than useless. Inflammatory symptoms are to be combated by bleeding from the arm, and by leeches; fomentations, frequent emollient glysters, and other remedies as symptoms may demand. No *specific* antidote yet known.

Tests. The ammoniacal sulphate of copper added to solutions of arsenic, produces for the most part a beautiful grass green precipitate, but if dissolved in wine the precipitate would be blackish blue.

Sulphureted hydrogen precipitates arsenic from tea of a beautiful yellow colour.

From albumen, gelatine, and bile containing arsenic in solution; nitrate of silver produces a white precipitate.

The ammoniacal nitrate of silver produces a yellow precipitate, soluble in nitric acid and ammonia; but the pre-

sence of muriates, or phosphates, or their acids, renders this test fallacious.

The most certain test is the reduction of the metal, by calcining the dried suspected matter in a glass tube, with equal parts of charcoal and potash, when, if arsenic be present in very minute quantity it will be sublimed and adhere to the inside of the tube, in the form of a shining metallic coating.

ANTIMONY.

TARTARISED ANTIMONY OR EMETIC TARTAR.

MURIATE OF ANTIMONY OR BUTTER OF ANTIMONY.

VITRIFIED OXYD, OR GLASS OF ANTIMONY.

Symptoms. Similar to those occasioned by acids, with abundant and obstinate vomitings, copious stools, constriction of the throat, cramps, symptoms of intoxication, and prostration of strength.

Treatment. Vomiting to be excited by tickling the throat with a feather or the finger, and by large draughts of mild fluids; or *allayed* by opium according to the previous effect of the poison. The best antidotes are, decoctions of astringent vegetables, such as oak or willow bark, or gall nuts, strong tea, &c.

Tests. Tartarised antimony is precipitated from its solution of an orange or deep brownish red colour by sulphureted hydrogen and the hydro-sulphurets; white, by sulphuric acid, alkalies, lime, and barytes waters. Alkaline and earthy *neutral* salts do not affect it, but salts with excess of acid do. Infusion of galls occasions a copious whitish yellow precipitate.

The muriate is a dark heavy fluid, to which if water be added a white precipitate is formed.

The oxyd is soluble in muriatic acid, forming the muriate.

All the preparations of antimony are readily reduced to the metallic state by calcination with charcoal and potash.

BISMUTH.

THE NITRATE.

THE OXYD, OR FLAKE WHITE, OR FACE POWDER.

Symptoms. Similar to those of other corrosive poisons, with great heat in the chest and very difficult breathing.

Treatment. No specific antidote known. Milk and mild mucilaginous fluids to be drank plentifully to facilitate vomiting, and purgatives should be given.

Tests. The nitrate boiled with distilled water is decomposed; part being precipitated as a *sub* nitrate, and

part remaining dissolved, being a *super* nitrate ; this solution is colourless, reddens litmus paper, and the hydro-sulphurets produce a black insoluble sulphuret of bismuth. The *sub* nitrate is soluble with a little heat in nitric acid, from which the alkalies precipitate the white oxyd, which is easily reduced by calcination.

COPPER.

THE SULPHATE, OR BLUE COPPERAS.

THE SUB-ACETATE OR VERDIGRIS.

FOOD COOKED IN FOUL COPPER VESSELS, AND PICKLES MADE GREEN BY COPPER.

Symptoms. Taste acrid and coppery ; tongue dry and parched ; constriction of the throat and coppery eructations ; severe vomitings, or fruitless efforts to vomit ; dragging at the stomach, dreadful colic ; frequent black bloody stools, with tenesmus ; abdomen distended, pulse small, hard, and quick ; syncope, great thirst, and anxiety ; cold sweats, scanty urine, cephalalgia, vertigo, cramps, convulsions, death.

Treatment. Large draughts of milk and water to encourage vomiting. Whites of eggs stirred up with water and taken freely. Inflammatory consequences to be subdued on general principles, and the nervous symptoms by anodynes and antispasmodics.

Sugar is *not* a specific antidote.

Tests. The salts of copper are mostly of a bright green or blue colour, and are easily reduced by charcoal at an elevated temperature. The sulphate is partly decomposed by alkalies and alkaline earths. Potash precipitates a *sub*-sulphate of a green colour from it.

Ammonia added to solution of any cupreous salt, gives a blue or greenish precipitate, according to the quantity ; but if added in excess, it re-dissolves the precipitate, and forms a deep blue transparent solution.

GOLD.

THE MURIATE.

FULMINATING GOLD.

Symptoms. Probably like those of other corrosive poisons, but not known.

Treatment. No specific antidote known, but vomiting should be excited or encouraged by large draughts of warm mucilaginous fluids.

Tests. Muriate of gold is decomposed by nitrate of silver. A muriate of silver is precipitated of a reddish brown colour, owing perhaps to some oxyd of gold being carried

down with it. Ammonia added to the precipitate dissolves all the muriate of silver, and leaves the oxyd of gold of a beautiful canary yellow colour.

SILVER.

NITRATE OR LUNAR CAUSTIC.

Symptoms. Similar to those occasioned by other corrosive poisons.

Treatment. A table spoonful of common salt to be dissolved in a pint of water, and a wine glass-full to be taken every five minutes, to decompose the poison; after which mucilaginous drinks may be given, or purgatives may be administered.

Tests. Nitrate of silver is precipitated white by muriate of soda, yellow, by phosphate and chromate of so. a; if placed on burning coals it animates them, leaving a coating of silver; calcined with charcoal and potash the silver is reduced to its metallic state.

TIN.

MURIATE, USED BY DYERS.

OXYD, OR PUTTY POWDER.

Symptoms. Taste austere, metallic, constriction of the throat, vomitings with pain over the whole abdomen; copious stools, pulse small, hard, and frequent; convulsive movements of the extremities and face; sometimes paralytic, and mostly death.

Treatment. Milk to be given; first in large quantities to distend the stomach and produce vomiting, and afterwards to decompose the remains of the poison.

Tests. The muriate precipitates gold from its solution of a purple colour; it is itself precipitated of a bright yellow colour by strong tea or alcoholic infusion of galls. Albumen and gelatin occasions a copious flocculent precipitate.

The oxyd may be volatilized by heat, is soluble in nitric acid, combines with earths by fusion, and with fixed alkalies forms enamel; it is easily reduced by calcination.

ZINC.

SULPHATE, OR WHITE VITRIOL.

OXYD.

Symptoms. An acerb taste, a sensation of choking, nausea and vomiting, pain in the stomach, frequent stools, difficult breathing, quickened pulse, paleness of face, coldness of the extremities; but seldom death, owing to the emetic quality of the poison.

Treatment. Vomiting, which is the usual consequence of large doses of sulphate of zinc, to be rendered easy by draughts of warm water, and particular symptoms to be met by appropriate remedies.

Tests. The pure sulphate is precipitated white by potash and ammonia; yellowish white by the alkaline hydro-sulphurets, and of an orange colour by the chromate of lead.

The oxyd is readily reduced by calcination with charcoal and nitre.

LEAD.

SUPER-ACETATE, OR SUGAR OF LEAD.

RED OXYD, OR RED LEAD.

CARBONATE, OR WHITE LEAD.

WINES SWEETENED BY LEAD.

Symptoms. When taken in large quantity, a sugary astringent metallic taste; constriction of the throat, pain in the region of the stomach, obstinate, painful, and often bloody vomitings, hiccough, convulsions, and death.

When taken in small long continued doses, it produces colica pictum, and paralytic symptoms.

Treatment. The same as that recommended for the salts of barytes.---*Vide Alkaline Earths.*

Tests. All the preparations of lead are easily reduced to the metallic state by calcination with charcoal.

The super-acetate dissolved in water is precipitated white by sulphuric acid; of a canary yellow colour by chromate of potash and chromic acid; these precipitates being easily reduced by calcination. The alkaline sulphurets precipitate the super-acetate of lead of a blackish colour.

MERCURY.

OXY-MURIATE, OR SUBLIMATE.

NITRIC OXYD, OR RED PRECIPITATE.

SULPHURET, OR VERMILION.

Symptoms. Acrid metallic taste, thirst, fulness, and burning at the throat; anxiety, tearing pains of the stomach and bowels; nausea and vomiting of various coloured fluids, sometimes bloody; diarrhoea and dysuria. Pulse quick, small, and hard; faintings, great debility, difficult breathing, cramp, cold sweats, insensibility, convulsions, and death.

Treatment. Whites of eggs to be mixed with water, and one to be given every two or three minutes to promote vomiting, and to lessen the virulence of the poison. Milk in large quantities, gum water, or linseed tea, sugar and water, or water itself at about 60°. Inflammatory conse-

quences to be anticipated, and to be subdued by the usual remedies.

Tests. Mercurial preparations heated to redness in a glass tube with potash, are decomposed, the quicksilver being volatilized. The oxy-muriate is precipitated white by ammonia, yellow by potash, and of an orange colour by lime water; by nitrate of tin a copious dark brown precipitate is formed, and by albumen mixed with cold water, a white flocculent one.

The red and nitric oxyds may be dissolved in muriatic acid, and converted into sublimate.

Vermilion is insoluble in water or muriatic acid; but is entirely volatilized by heat.

ACIDS.

SULPHURIC, OR OIL OF VITRIOL.

NITRIC, OR AQUA FORTIS.

MURIATIC, OR SPIRIT OF SALT.

OXALIC, OR ACID OF SUGAR.

PHOSPHORIC.

FLUORIC.

TARTARIC.

PRUSSIC.

Symptoms. Acid burning taste, acute pain in the throat, stomach, and bowels, frequent vomiting of bloody fluid, which effervesces with chalk or alkaline carbonates, and reddens litmus paper; hiccough, copious stools, more or less bloody; tenderness of the abdomen; difficult breathing, irregular pulse, excessive thirst, drink increasing the pain, and seldom staying down; frequent but vain efforts to make water; cold sweats, altered countenance, convulsions, and death.

The most virulent of poisons, producing almost instant death, when applied in small quantities to the surface of the body.

Treatment. Mix an ounce of calcined magnesia with a quart of water, and give a glass-full every two minutes. Soap or chalk and water may be used till magnesia can be procured. Carbonated alkalies are objectionable, on account of the great extrication of gas in the stomach, and the salts formed with them are too irritating for the stomach. Vomiting is to be excited by tickling the throat. Diluents to be taken after the poison is got rid of, and the return to solid food must be very gradual. Inflammatory and other consequences to be treated by the usual remedies.

If prussic acid has been taken, emetics are to be given with as little delay as possible, and after their operation, oil of turpentine, ammonia, brandy, and other stimulants

capable of rousing the system, should be perseveringly employed with warmth, friction, and blisters.

If the vitriolic acid has been swallowed, water alone should not be given, nor should calcined magnesia with water be given; but the common carbonate of magnesia may be given freely when mixed with water. There is too much heat generated in the stomach if the above cautions be not attended to.

Tests. Sulphuric acid is known by its great weight, by evolving heat when mixed with water; by emitting no fumes. If barytes be added to it a sulphate is formed, which is insoluble in water or nitric acid.

Nitric acid emits orange coloured fumes upon adding copper to it, and is changed blue by it; if potash be added a nitrate is formed which deflagrates when thrown on burning coals. It tinges the skin yellow.

Muriatic acid emits pungent fumes; if nitrate of silver be added to it, a very white precipitate is formed of muriate of silver, soluble in ammonia, but not in nitric acid.

Oxalic acid precipitates lime and all its salts from water, the precipitate being soluble in nitric, but not in excess of oxalic acid. Exposed to heat it volatilizes, leaving but little residue; it is decomposed by sulphuric acid becoming brown; it is dissolved by heat and nitric acid and rendered yellow; muriatic acid dissolves it with heat and decomposes it.

Phosphoric acid precipitates barytes and lime waters, the precipitate being soluble in nitric acid; it is decomposed by charcoal at a high temperature, evolving carbonic acid and phosphorus being sublimed.

Fluoric acid exhales white vapours, not unlike those of muriatic acid; heat is evolved with a hissing noise when water is added to it; it dissolves glass.

Tartaric acid produces a precipitate from lime water, soluble in an excess of acid, and in nitric also; with potash it forms a *neutral* and a *super-salt*; it does not precipitate solution of silver, but its salts do.

Prussic acid has a strong odour of bitter almonds, and is contained in that fruit, and in the leaves of the peach and the laurel; it is soluble in alcohol, but hardly in water, and is precipitated from its solution by nitrate of silver.

ALKALIES, *Caustic or Carbonated.*

POTASH.

SODA.

AMMONIA.

Symptoms. The taste acrid, urinous, and caustic; great heat in the throat; nausea and vomiting of bloody matter;

which changes syrups of violets to green, and effervesces with acids if the carbonated form of the alkali has been taken ; copious stools, acute pain of the stomach, colic, convulsions, derangement, and death.

Treatment. Vinegar and other vegetable acids to be given largely to neutralize the poison, and the consequent symptoms to be treated on general principles.

Tests. Alkalies have many properties in common ; their solutions feel soapy to the touch, change to green vegetable reds and blues ; and yellows to brown ; remain transparent when carbonic acid is added to them, which distinguishes them from solutions of the alkaline earths, barytes, strontian and lime. Nitrate of silver is precipitated by them in form of a dark coloured oxyd, soluble in nitric acid.

Potash and soda may be distinguished from each other by evaporating their solutions to dryness ; potash will become moist by absorbing water from the air, while soda will remain dry. Ammonia is known by its pungent smell.

ALKALINE EARTHS.

LIME.

BARYTES.

PURE BARYTES.

CARBONATE.

MURIATE.

Symptoms. Violent vomitings, convulsions, palsy of the limbs, distressing pains of the abdomen, hiccough, alteration of the countenance, and very early death.

Treatment. If lime has been taken, vinegar and other vegetable acids are the best antidotes.

If barytes in any of its forms has been swallowed, a weak solution of Epsom or Glauber's salt should be drank plentifully, to produce vomiting, and at the same time to decompose the poison, which it renders inert by forming an insoluble sulphate. Till the above salts can be had, large draughts of well water alone, or made slightly sour by sulphuric acid, may be drank pretty freely.

Tests. Solution of lime changes vegetable blues to green, and is precipitated white by carbonic and oxalic acid, while no change is produced on it by sulphuric acid ; its salts are decomposed by the *fixed* alkalies which precipitate the lime, but not by ammonia.

Pure barytes undergoes changes similar to lime when water is added to it, and acts like it on vegetable colours ; it does not effervesce with acids. Sulphuric acid, and all the sulphates added to a solution of it, produce a white precipitate, insoluble in water and nitric acid.

Carbonate of barytes is insoluble in water, but dissolves in nitric or muriatic acid, with effervescence.

Muriate of barytes dissolved in water, is not changed by pure ammonia, but its carbonate, as well as all other alkaline carbonates, throw down a white precipitate, which is carbonate of barytes.

NITRE, or SALT PETRE.

Symptoms. Cardialgia, nausea, painful vomiting, purging, convulsions, syncope, pulse feeble, extremities cold, with tearing pains of the stomach and bowels; difficult respiration, a kind of intoxication, and death.

Treatment. Similar to that of arsenic, except that lime is not to be used.

Tests. If the nitre be thrown on burning coals, it crackles, and gives a beautiful white flame; if powdered, and sulphuric acid be poured upon it, it gives out white vapours; both these circumstances distinguish it from Glauber's salt. It is decomposed at a high temperature, affording oxygen gas.

MURIATE OF AMMONIA, or SAL AMMONIAC.

Symptoms. Excessive vomitings, with convulsions and general stiffness of the muscles, great pain in the bowels, early alteration of the features, and death.

Treatment. Vomiting to be rendered easy by large draughts of warm sugared water, and if not occasioned by the poison, should be excited by the finger. The consequent nervous symptoms to be calmed by anodynes and anti-spasmodics, and inflammatory ones counteracted by the usual means.

Tests. Muriate of ammonia is soon volatilized if placed on hot coals; if rubbed with quick lime, it gives out the odour of hartshorn. A solution of it in water is precipitated white upon the addition of nitrate of silver.

PHOSPHORUS.

Occasions *symptoms* similar to those of concentrated acids.

Treatment. No specific antidote is known, but vomiting should be excited by large draughts of water, and oil or fatty substances should be avoided.

Tests. If phosphorus, or the rejected contents of the stomach after it has been taken, be boiled in a retort, having its beak under water, with a solution of caustic potash, phosphorated hydrogen gas is formed, which explodes

with a green flame as soon as it reaches the surface of the water.

GLASS or ENAMEL.

Symptoms. If taken in very coarse powder, it produces irritation and inflammation of the bowels.

Treatment. Large quantities of crumb of bread should be eaten to envelope the particles. An emetic of sulphate of zinc should then be given, and vomiting promoted by demulcent drinks.

ALCOHOL.

BRANDY.

WINES, AND ALL SPIRITUOUS LIQUORS.

Symptoms. Intoxication, and when taken very freely, complete insensibility, with apoplexy or paralysis of one side; the countenance is swollen, and of a dark red colour; the breathing is difficult, and often stertorous, with a peculiar puffing out of the lips; the breath smells of liquors, which will distinguish the symptoms from those of spontaneous apoplexy.

Treatment. A powerful emetic of white vitriol, or tartar emetic, should be got into the stomach as soon as possible, and if the person has lost the power of swallowing, a flexible catheter or tube should be the means of conveying it there. The vomiting should be encouraged as much as possible with warm water, and large and active clysters of salt and water should be thrown up. The patient should be placed erect, and if the countenance and other appearances are not improved after these means have been used, the jugular vein may be opened, and cold wet cloths applied to the head, particularly if the body is hotter than natural. If the extremities become cold, warmth and friction should be perseveringly used.

VEGETABLE POISONS.

IRRITATING POISONS.

<i>Aconitum napellus</i>	- - - - -	Monks-hood
<i>Anemone pulsatilla</i>	- - - - -	Pasque Flower
<i>Arum maculatum</i>	- - - - -	Wake Robin
<i>Bryonia dioica</i>	- - - - -	Bryony
<i>Callicocca ipecacuanha</i>	- - - - -	Ipecacuanha
<i>Chelidonium majus</i>	- - - - -	Celandine
<i>Clematis vitalba</i>	- - - - -	Virgins Bower
<i>Colchicum autumnale</i>	- - - - -	Meadow Saffron

<i>Convolvulus scamonea</i>	- - - -	Scammony
<i>Cucumis colocynthis</i>	- - - -	Bitter Apple
<i>Daphne mezereum</i>	- - - -	Mezereon
<i>Daphne laureola</i>	- - - -	Spurge Laurel
<i>Delphinium staphasagia</i>	- - - -	Stavesacre
<i>Euphorbia officinarum</i>	- - - -	Euphorbium
<i>Fritillaria imperialis</i>	- - - -	Crown Imperial
<i>Gratiola officinalis</i>	- - - -	Hedge Hyssop
<i>Hydrocotyle vulgaris</i>	- - - -	Marsh Pennywort
<i>Helleborus niger</i>	- - - -	Black Hellebore
<i>Helleborus foetidus</i>	- - - -	Bears Foot
<i>Juniperus sabina</i>	- - - -	Savine
<i>Lobelia syphilitica</i>	- - - -	Cardinal Flower
<i>Momordica eluterium</i>	- - - -	Elaterium
<i>Narcissus pseudo-narcissus</i>	- - - -	Daffodil
<i>Oenanthe crocata</i>	- - - -	Hemlock Dropwort
<i>Phellandrium aquaticum</i>	- - - -	Water Hemlock
<i>Pedicularis palustris</i>	- - - -	Louse-wort
<i>Ranunculus acris</i>	- - - -	Butter Cups
----- <i>sceleratus</i>	- - - -	Water Crowfoot
----- <i>flammula</i>	- - - -	Lesser Spear Wort
<i>Rhododendron corymbosum</i>	- - - -	Yellow Rhododendron
<i>Rhus toxicodendron</i>	- - - -	Poison Oak
<i>Ricinus major</i>	- - - -	Purging Nut
<i>Sedum acre</i>	- - - -	Wall Pepper
<i>Sempervivum tectorum</i>	- - - -	Houseleek
<i>Scilla maritima</i>	- - - -	Squill
<i>Stagnumitis cambogoides</i>	- - - -	Gamboge
<i>Veratrum album</i>	- - - -	White Hellebore
<i>Viola tricolor</i>	- - - -	Hearis Ease.

Symptoms. The general effects of this class of vegetable poisons, are an acrid pungent taste, with more or less of bitterness, excessive heat, great dryness of the mouth and throat, with sense of tightness in it; violent vomitings, and the efforts are continued even after the stomach is emptied; purging, with great pain in the stomach and bowels; pulse strong, frequent, and regular; breathing often quick and difficult: appearances of intoxication; the pupil of the eye frequently dilated, insensibility resembling death, the pulse becomes slow, and loses its force, and death closes the scene.

If applied externally they, many of them, produce violent inflammation of the skin, with vesications or eruptions of pustules.

Treatment. If vomiting has been occasioned by the poison, and the efforts are still continued, they may be rendered easier by large draughts of warm water, or thin gruel; but if symptoms of insensibility have come on with-

out vomiting, it ought to be immediately excited by the sulphate of zinc, or some other active emetic substance, and after its operation a sharp purgative should be given. After as much as possible of the poison is got rid of, a very strong infusion of coffee, or vinegar diluted with water, may be given with advantage. Camphor mixture with ether may be taken frequently, and if insensibility be considerable, warmth, frictions, and blisters, may be employed. If inflammation or other dangerous consequences have been induced, they are to be treated upon general principles.

The fruit of the *fewillea cordifolia* has been lately recommended as a powerful antidote against vegetable poisons; it is to be used in as recent a state as possible.

NARCOTIC POISONS.

<i>Actea spicata</i>	- - - - -	Bane Berries
<i>Æthusa cynapium</i>	- - - - -	Fools Parsley
<i>Aristolochia clematitia</i>	- - - - -	Birth Wort
<i>Atropa belladonna</i>	- - - - -	Deadly Night Shade
<i>Cicuta virosa</i>	- - - - -	Water Hemlock
<i>Conium maculatum</i>	- - - - -	Hemlock
<i>Datura stramonium</i>	- - - - -	Thorn Apple
<i>Digitalis purpurea</i>	- - - - -	Fox Glove
<i>Ervum ervilia</i>	- - - - -	Lentil
<i>Hyosciamus niger</i>	- - - - -	Henbane
<i>Lactuca virosa</i>	- - - - -	Strong Scented Lettuce
<i>Laurus camphora</i>	- - - - -	Camphor
<i>Laurus cerasus</i>	- - - - -	Common Laurel
<i>Lolium temulentum</i>	- - - - -	Darnel
<i>Menispermum coculus</i>	- - - - -	Coculus Indicus
<i>Nicotiana tabacum</i>	- - - - -	Tobacco
<i>Papaver somniferum</i>	- - - - -	Opium
<i>Paris quadrifolia</i>	- - - - -	Herb Paris
<i>Solanum dulcamara</i>	- - - - -	Woody Night Shade
<i>Strychnos nux vomica</i>	- - - - -	Crow Fig.

Symptoms. The narcotic vegetable poisons, if taken into the stomach, or applied to a wound, occasion the following effects:---Stupor, numbness, heaviness in the head, desire to vomit, slight at first, but afterwards insupportable; a sort of intoxication, stupid air, pupil of the eye dilated, furious or lively delirium, sometimes pain, convulsions of different parts of the body, or palsy of the limbs. The pulse is variable, but at first generally strong and full; the breathing is quick, and there is great anxiety and dejection, which if not speedily relieved soon ends in death.

Treatment. The stomach to be effectually evacuated, by giving four or five grains of tartar emetic, or from ten to twenty of the sulphate of zinc, and repeat it every quarter of an hour, till the full effect is produced. These means may be assisted by tickling the throat with a feather, or the finger. Large and strong clysters of soap dissolved in water, or of salt and gruel, should be speedily administered, to clear the bowels and assist in getting rid of the poison, and active purgatives may be given after the vomiting has ceased. When as much as possible of the poison has been expelled, the patient may drink, alternately, a tea-cup full of strong hot infusion of coffee, and vinegar diluted with water. If the drowsiness, which is sometimes extreme, and the insensibility bordering on apoplexy, be not remedied by these means, blood may be taken from the jugular vein, blisters may be applied to the neck and legs, and the attention roused by every means possible. If the heat declines, warmth and frictions must be perseveringly used. Vegetable acids are on no account to be given *before* the poison is expelled, and it is desirable that but little fluid of any kind should be given.

POISONOUS MUSHROOMS.

<i>Agaricus muscarius</i>	- - - -	Fly Agaric
----- <i>piperatus</i>	- - - -	Pepper Agaric
----- <i>necator</i>	- - - -	Deadly Agaric
----- <i>bulbosus</i>	- - - -	Bulbous Agaric
----- <i>chantarellus</i>	- - - -	Cuampignon.

Symptoms. Nausea, heat, and pain in the stomach and bowels, with vomiting and purging; thirst, convulsions, and faintings; pulse small and frequent; delirium, dilated pupil and stupor, cold sweats, and death.

Poisonous mushrooms may be distinguished from the edible ones by their botanical characters, and by the following criteria. The former grow in wet shady places, have a nauseous odour, are softer, more open and porous; have a dirty looking surface, sometimes a gaudy colour, or many very distinct hues, particularly if they have been covered with an envelope; they have soft bulbous stalks, grow rapidly, and corrupt very quickly.

Treatment. The stomach and bowels to be first cleared by an emetic of tartarized antimony, followed by frequent doses of Glauber's or Epsom salt, and large stimulating clysters. After the poison is evacuated, ether may be administered with small quantities of brandy and water, but if inflammatory symptoms manifest themselves, such

stimuli should be omitted, and other appropriate means had recourse to.

ANIMAL POISONS.

POISONOUS FISH.

<i>Balistes monoceros</i>	- - - - -	Old Wife
<i>Cancer astacus</i>	- - - - -	Sea Lobster
<i>----- ruricolus</i>	- - - - -	Land Crab
<i>Clupea thryssa</i>	- - - - -	Yellow Billed Sprat
<i>Coracinus fuscus major</i>	- - -	Gray Snapper
<i>Coracinus minor</i>	- - - - -	Hyne
<i>Coryphæna splendens</i>	- - - - -	Dolphin
<i>Mormyra</i>	- - - - -	Blue Parrot Fish
<i>Muraena major</i>	- - - - -	Conger Eel
<i>Mytilus edulis</i>	- - - - -	Mussel
<i>Ostracion globellum</i>	- - - - -	Bottle Fish
<i>Perca major</i>	- - - - -	Barracuda
<i>Perca venenosa</i>	- - - - -	Grooper
<i>Perca venenata</i>	- - - - -	Rock Fish
<i>Scomber maximus</i>	- - - - -	King Fish
<i>Scomber thynnus</i>	- - - - -	Bonetta
<i>Sparus chrysops</i>	- - - - -	Porgie
<i>Tetrodon sceleratus</i>	- - - - -	Tunny
<i>Tetrodon ocellatus</i>	- - - - -	Blower.

Symptoms. In an hour or two, or often in a much shorter time, after stale fish have been eaten, a weight at the stomach comes on, with slight vertigo and headach, with a sense of heat about the head and eyes, considerable thirst, and often an eruption of the skin (urticaria), and in many cases death has happened.

Treatment. An emetic should be speedily administered, or in the absence of it, the vomiting may be excited, by tickling the throat with the finger, and taking large draughts of warm water. After full vomiting, an active purgative should be given to remove any of the noxious matter that may have found its way into the intestines. Vinegar and water may be drank after the above remedies have operated, and the body may be sponged with the same. Water made very sweet with sugar, to which ether may be added, may be drank freely as a corrective, and a very weak solution of alkali has been recommended, to obviate the effects of the poison. If spasm ensue, after evacuations, laudanum, in considerable doses, is necessary. If inflammation should occur, the usual means of removing it must be employed.

POISONOUS SERPENTS.

<i>Coluber berus</i>	- - - - -	Viper
<i>Coluber prester</i>	- - - - -	Black Viper
<i>Coluber naja</i>	}	- - - - - Rattlesnake
<i>Crotalus horridus</i>		
<i>Cobra de capello</i>		
<i>Coluber carinatus</i>		
Gedi Paragoodoo		
Ratuka Rekula Foda		
Rodroo Pam.		

Symptoms. A sharp pain in the wounded part, which soon extends over the limb or body; great swelling, at first hard and pale, then reddish, livid, and gangrenous in appearance; faintings, vomitings, convulsions, and sometimes jaundice; pulse small, frequent, and irregular, breathing difficult, cold sweats, the sight fails, and the intellectual faculties are deranged. Inflammation, and often extensive suppuration and gangrene, followed by death.

Treatment. A moderately tight ligature to be applied above the bites, and the wound left to bleed after being well washed with warm water; the actual cautery, lunar caustic, or butter of antimony, to be then applied freely to it, and afterwards covered with lint, dipped in equal parts of olive oil and spirit of hartshorn. The ligature to be removed if the inflammation be considerable. Warm diluting drinks, and small doses of ammonia or hartshorn to cause perspiration; to be well covered in bed, and a little warm wine given occasionally. If gangrene be threatened, wine may be given more freely, and the bark should be had recourse to. Arsenic, the principal ingredient of the Tanjore pill, has been strongly recommended.

CANTHARIDES.

SPANISH, OR BLISTERING FLY.

Symptoms. Nauseous odour of the breath, acrid taste, burning heat in the throat, stomach, and belly, frequent vomitings, often bloody, with copious bloody stools; excruciating pain in the stomach; painful and obstinate priapism, with heat in the bladder, and strangury or retention of urine; frightful convulsions, delirium, and death.

Treatment. Vomiting to be excited by drinking sweet oil, sugar and water, milk, or linseed tea very freely. Emollient clysters should be administered, and if symptoms of inflammation of the stomach, kidney, or bladder, supervene, they must be subdued by appropriate treatment.

Camphor dissolved in oil may be rubbed over the belly and on the thighs.

VENOMOUS INSECTS.

Tarantula

Scorpio - - - - - Scorpion

Vespa crabro - - - - - Hornet

Vespa vulgaris - - - - - Wasp

Apis mellifica - - - - - Bee

Culex pipiens - - - - - Gnat

Æstrus bovis - - - - - Gad Fly.

Symptoms. In general the sting of these insects occasion only a slight degree of pain and swelling; but occasionally the symptoms are more violent, and sickness and fever are produced by the intensity of the pain.

Treatment. Hartshorn and oil may be rubbed on the affected part, and a piece of rag moistened in the same, or in salt and water, may be kept upon it till the pain is removed. A few drops of hartshorn may be given frequently, in a little water, and a glass or two of wine may be taken. The sting may in general be removed by making strong pressure over it with the barrel of a small watch key.

SALIVA OF THE RABID DOG.

Symptoms. At an uncertain interval after the bite, generally however between the twentieth day and three or four months, pain or uneasiness occurs in the bitten part, though the wound may have been long healed. Anxiety, uneasiness, languor, spasms, horror, disturbed sleep, difficult respiration succeed, and are soon very much increased; violent convulsions affect the whole body, hideously distorting the muscles of the face; the eyes are red and protruded, the tongue swells, and often hangs out, and viscid saliva flows from the mouth; there is pain in the stomach, with bilious vomitings, a horror of fluids, and impossibility of drinking them. All these symptoms are aggravated till the sufferer is relieved by death.

Treatment. Hydrophobia is more easily prevented than cured, indeed it is doubtful if it ever has been cured. Mercury, arsenic, opium, musk, camphor, acids, wine, vegetable and mineral alkali, oil, various herbs, and many other remedies, whose effects are quite opposite, have been employed, but none can be relied on. Large blood-lettings, the warm and cold bath, and almost every other remedial agent, have been tried without success.

The bitten part should be completely cut out, even after it has healed, if the symptoms have not yet come on; the

part should then be immersed in warm water, or washed with it as long as it will bleed, and after the most persevering ablution caustic should be applied to every part of the surface, and then the wound covered with a poultice, and suffered to heal by granulations.

No milder discipline can insure safety.

POKE. *Phytolacca.* The root.

POLYPI. These are organized fleshy excrescences, of a pyramidal shape, growing on a thin pedicle or root, from mucous membranes, as the nose, arteries, vagina, meatus auditorius, rectum, antrum.

POLYPI OF THE NOSE. These are the most frequent, and consist of three different species. 1st, the *fleshy polypus*, which is a red, soft, sensible, healthy looking tumour, free from pain, and is the mildest of the whole species. 2d, the *malignant polypus*, which is hard, scirrhous, and painful, bleeds profusely on slight causes, and are attended with pain in the forehead, and at the root of the nose, and in time proceeds to cancerous ulceration. 3d, *Polypus of the mucous membrane of the nostril* which is tough, of a pale colour, and a viscid secretion exudes from its surface. It is a mere elongation of the schneiderian membrane, caused by frequent colds; indeed the whole membrane of the nose is sometimes so relaxed and thickened as to obliterate its cavities. There are other species of polypi mentioned by authors, as the soft, brittle, and vesicular or hydated, &c. Mr. John Bell doubts the existence of malignant polypi, and supposes them all essentially alike and that the pain, caries, ulceration, &c. are the effects of pressure and distention. Mr. S. Cooper coincides with Mr. Bell. Polypus has but one root originally, though it may have adhesions from inflammation. It grows sometimes from the nasal duct, antrum, &c. but most commonly from the ossa spongiosa.

Symptoms. At first a slight obstruction of one nostril which always increases in damp weather, (as the tumour always increases in size and diminishes again on dry days.) This the patient attributes to a cold in his head, but the tumour growing, soon permanently obstructs the passage, and at length protrudes forwards and becomes visible in the nostril; it often extends backwards to the throat, increases to such an extent as to impede respiration and deglutition. Anteriorly it increases in size, often bleeds profusely, causes sometimes fistula lacrymalis from its pressure on the nasal duct, produces hideous deformity, and at length, ulceration, caries, and death.

Treatment. It is difficult to credit the accounts of cures said to have been made by injecting a strong solution of sal ammonia and other articles. They may however have been useful in constringing the thickened and relaxed Schneiderian membrane. But in true polypi, extraction is the only efficacious remedy, far preferable indeed, to caustic or ligature. In extracting a nasal polypus two objects must be kept in view, first to reach and apply the forceps to its root, and secondly to effect its removal, by gently pulling and twisting it off, rather than by dragging it directly out. After directing the patient to propel the tumour as much as possible into the nostril by blowing strongly through it; with a common pair of forceps we are to lay hold of its body, and slowly and gently draw it forth, by which it is elongated and room made in the nostril for the introduction of the polypus forceps. The polypus forceps are next to be introduced, carried up to the root of the polypus and the tumour is then to be extracted by twisting as above described. When however the root is beyond our reach we must be content to seize it as high up as possible. Should it unfortunately give way at that part, the hemorrhage will probably be profuse; in such a case the remedy is to immediately seize the remaining portion and extract. Should, however, hemorrhage ensue when the tumour is removed from its root which is not probable, particularly if it has been twisted off in the manner recommended, it may be checked by injecting ice cold water, or by applying a piece of lint saturated with a strong solution of sulphate of zinc, rolled round the end of a probe, and pressed steadily against the bleeding surface. Should the blood flow down the throat, a plug must be applied through the fauces as in epistaxis. Polypi are very apt to recur, particularly when not detached at their roots, rendering a repetition of the operation necessary. There are sometimes more polypi than one---all must be extracted. Sometimes a polypus presents itself behind the soft palate in the throat. In such cases it is better to extract it in that direction by means of a curved pair of forceps carried through the mouth. Sometimes a polypus is so large, as to present itself anteriorly in the nostril and posteriorly in the throat at the same time. Under these circumstances it is better to extract the nasal portion first, which often so loosens the posterior portion that its removal is quite easy. But, perhaps, applying a pair of forceps to each portion at the same time, and pulling alternately, anteriorly and posteriorly until detached, is a better plan. When the polypus bleeds freely on being touched, some, dreading the hemorrhage that may ensue

by extraction, prefer using a ligature of silver wire, conveyed over the tumour by means of a double canula, and tightened every day until it sloughs off; but the plan had certainly many objections to it. When the debilitated condition of the patient will not bear any loss of blood, and the necessity of removing the polypus is urgent Mr. S. Cooper thinks that cauterization may, in this single instance, be admissible. For this purpose a heated trochar is to be introduced through canula into the middle of the tumour. Inflammation, suppuration, and mortification follows, and the whole mass is thrown off. Injections of alum, &c. must be frequently thrown into the nostril as soon as suppuration begins. In very hard polypi, which cannot be twisted off, the knife is generally resorted to, though it is apt to be followed by profuse hemorrhage. Sometimes cutting a part of it off, to make room for the application of a ligature may be proper. Polypi of the Schneiderian membrane are often reduced by astringent injections of alum, muriate of ammonia, &c. When the nasal passages are obstructed by a general thickening of the membrane, catgut, and small bougies are to be daily used to remove it. All authors agree in the propriety of extracting polypi of the first species, or those of a pale greyish or light brown colour, which diminish and increase with the changes of weather, and are without adhesions except at its roots. On the contrary we are advised not to extract those of the 2d species, those which are undiminishable in dry weather, those immovable in the nostril from adhesions, and those attended with a fetid discharge. The danger apprehended to result from the extraction of these kinds are represented to be profuse hemorrhage, and a tendency to excite into action latent carcinoma. But Mr. S. Cooper remarks, that he is decidedly of opinion with Richter, that these circumstances are not adequate causes for leaving the disease to itself, and therefore joins him in advising us to proceed against all polypi with equal rigour.

POLYPI OF THE UTERUS. These grow, 1st from the fundus uteri the most frequent; 2d from the inside of its cervix; 3d at the edge of the os uteri the least frequent. They are pyramidal with a thin pedicle, and are of the fleshy kind, being rarely scirrhus or malignant.

Symptoms. A polypus growing from the fundus uteri, distends the organ and increases the size of the abdomen; its growth is slow, the menses proceed regularly, though sometimes are more profuse. If pregnancy happens to take place, parturition is apt to be premature. After some time, and a considerable growth of the polypus, it is expelled from the uterus into the vagina, sometimes by

labour pains. It now grows rapidly, and by its pressure deranges the functions of the bladder and rectum. Its neck being constricted by the os uteri, the return of blood is impeded and turgescence of its vessels ensues; these vessels, either spontaneously, or by walking, riding, or other motions, are ruptured and a profuse hemorrhage follows. Repetitions of flooding, and a constant discharge of a mucous and aqueous fluid induces great debility. At length the tumour is expelled from the vagina and appears at the external parts, keeping up the same symptoms and producing also, inversion, or prolapsus of the womb. Ulcerations frequently now occur upon its surface, from friction and the excoriation of urine. Hemorrhages continue. The other two species differ but little; they are however not attended with hemorrhage, and produce prolapsus but not inversion of the uterus. *Diagnosis.* From pregnancy, by the want of a regular progressive enlargement of the abdomen, quickening, enlargement of the breasts, and by the continuance of the menses: from prolapsus uteri, by want of the os uteri and its sensibility, and by the polypus being of a pear like form: from inversion of the womb, by the absence of labour, (when inversion generally happens) and by the presence of a circular fold at the upper part of the tumour, which is the os uteri; moreover a probe can be passed up into the vagina by the side of the tumour, but not so in inversion. Uterine polypi are not so apt to recur, when removed, as the nasal.

Treatment. In a few cases, when the pedicle is quite thin, a uterine polypus may be twisted off, though generally the ligature applied with a double canula is the proper remedy. (See a drawing in Cooper's First Lines.) The ligature should be tightened every two or three days, until the tumour drops off, and irritation kept down by bleeding and purging, slight astringent injections are also proper as, infusion of chamomile, solution of alum, &c. It is obvious that nothing can be done until the tumour escapes from the uterus into the vagina. The sudden expulsion of the tumour from the uterus has in a few instances inverted the latter. In such cases a ligature should be applied tight around its pedicle, and the tumour amputated below. The inverted uterus is then to be reduced. Polypi or excrescences of the vagina are to be treated with the ligature. The membrane lining the vagina, or rather the rugæ, is subject to a relaxation and elongation analagous to that of the schneiderian membrane in the 3d species of nasal polypi. If it does not yield to astringents, as alum, zinc, copper, &c. the ligature must be resorted

to. Polypi of the œsophagus can only be removed when near enough to be brought into the mouth by vomiting, so that the ligature may be put on. It is then to be again swallowed. In consequence of the difficulty of respiration, &c. during the operation, and the uncertainty of its being effectually applied, some recommend that bronchotomy be performed, and the patient to breathe through a tube for the time being. Polypi of all other parts are to be either twisted off, cut off, or removed by ligature. Consult *Post and Wheatley on Polypi*; also *J. Bell's Surgery*. *S. Cooper's Surg. Works*.

PORRIGO. See *Scalded Head*.

POTASS. *Potassæ, Caustic.* *Potassæ acetæ*, (diuretic salt) diuretic, cathartic, dj. to ʒj. *Aqua potassæ*, particularly recommended by Sir A. Cooper, to relieve the irritability of the bladder, incident to the many diseases of the urinary apparatus, dose ℥x. three a day. *Potassæ subcarbonas impurus.* (Pearl ashes.) Diuretic, sudorific. Externally in form of lotion for rickets, indolent ulcers, as a stimulant. *Potassæ carbonas*, diuretic, antacid, gr. x. to dj. *Potassæ cum calce.* Milder caustic, and less deliquescent. *Potassæ subcarbonas*, (Salt of tartar) diuretic, antacid gr. v. to dj. *Liquor potassæ subcarbonatis*, f ʒss. to j. *Potassæ nitras*, sedative, febrifuge, diuretic, gr. v. to ʒss. *Potassæ sulphas*, mild cathartic, ʒj to iv. *Potassæ tartras*, mild cathartic, ʒj. to ʒss. *Potassæ supertartras*, (cream of tartar) ʒj. to ʒss. also diuretic dj. to ʒj in solution. *Potassæ supercarbonas.* *Tartras potassæ et sodæ*, (Rochelle salt) mild cathartic, ʒss. to ʒi.

POTATOE-FLIES. *Cantharides vittatæ.*

Poultice or Cataplasm. *Emollient.* Prepared bread, linseed powder, oat, rye, or indian meal. *Sedative.* The above with the addition of sugar of lead, opium, hemlock, &c. *Antiseptic and effervescing.* Two ounces of finely powdered charcoal, mixed in with half a pound of emollient poultice. Or stir into the grounds of strong beer sufficient oatmeal to make it a proper consistence. Or add as much yeast to either of the meals to make a poultice putting it in a warm place until it ferments. *Resolvent.* The meals mixed up with strong beer grounds, wines, lees, vinegar, strong solution of muriate of ammonia, or muriatic natron.

POX, Chicken. *Varicella.* This is an eruptive disease, depending upon specific contagion, and occurring but once during life.

Symptoms. Slight pyrexia, about the third day an eruption takes place upon the body of small reddish pimples. On the second or third day from their appearance,

they are filled with a colourless and sometimes yellowish fluid, but do not come to any distinct suppuration. Some cases very much resemble the benign small pox, but the doubt is removed on the fifth day, when the eruption declines in the form of a scab, leaving little or no cicatrix. Besides their early declension the eruptions are not preceded by long uncertain duration of fever neither do they form matter as in small pox.

Treatment. Febrifuges and mild cathartics are all the medicines required in this disease. The swine pox, differs only in exhibiting a pustule somewhat longer.

POX, COW OR KINE. *Variolæ Vaccinæ.* It had long been proverbial in England, that the peculiar eruption common on the teats and udders of cows, was communicated to the milkers, and that persons, so infected, were always exempt from the Small Pox. This led Dr. Jenner to investigate the subject, and in the year 1798 he announced to the world, that the disease of the cow, just alluded to, when conveyed into the human system, was a preventive to the small pox, and moreover, that it was communicable from one person to another by inoculation, and being a disease of peculiar mildness, recommended it as a substitute for that fatal malady. Its efficacy is now fully established, and its blessings diffused to every part of the globe.

Character. A circumscribed, circular, elevated eruption, surrounded by a red halo or efflorescence; smooth, flat surface; brown, black, mahogany, or tamarind-stone coloured, long adhering scab.

Symptoms. The third day from inoculation, a small red spot resembling a flea bite appears at the point of inoculation; on the fifth and sixth, matter is formed in the pustule; on the eighth the pustule is fully formed; from the seventh to the ninth, febrile action is apparent; on the tenth the areola is fully formed. These characteristics are decisive of its legitimacy, and the safety of the patient. On the sixteenth day the scab is thrown off. It requires no other treatment than a little mild physic after its decline. Should however the inflammation of the pustule be severe, the application of saturnine lotions and emollient poultices is advisable.

Some of its laws. 1st. There is rarely more than one pustule, and that at the place of inoculation. 2d. It is communicable by inoculation only. 3d. Its inoculation will supercede the small pox many days after casual infection. 4th. If a person be inoculated with the variolous and vaccine fluids at the same time, both go through their regular courses, though somewhat more slowly and im-

perfectly. 5th. After the ninth day from inoculation, the small pox is for ever excluded from the system. 6th. It leaves behind it no marks upon the skin, or other deformity, neither does it call into action latent diseases.

Rules for inoculation. 1st. The matter should not be taken later than the ninth day. 2d. The fluid should be perfectly limpid and transparent. 3d. One puncture generally is sufficient, there should be never more than two, one in each arm. 4th. To be certain that the pustule possesses the genuine characters of the cow pox. 5th. Matter for future use should be preserved on pointed quills, or pieces of glass, should be suffered to dry gradually, and be kept in a cool place. 6th. To re-inoculate when the first operation is unsatisfactory.

The instances recorded of failure of the cow pox, have in most instances been clearly ascertained to proceed from the use of bad matter; the virus having suffered decomposition from putrefaction or other cause; having been taken from a pustule in an advanced state, or from a pustule itself spurious.

POX, SMALL. *Variola.* This is a contagious eruptive fever occurring but once during life. It has existed in China and Hindostan from the remotest periods. From those places it reached Arabia in the sixth century and by the Arabians it was communicated to the eastern and northern shores of Africa, and from the latter it was carried by the Saracens into Europe in the eighth century upon the invasion of Spain, Italy, &c. There are two species, 1st, the *distinct*, when the pustules are distinct and separate; 2d, the *confluent*, when the eruption coalesces, or runs together. The former is attended with inflammatory fever, the latter with the typhoid. It is also distinguished by the terms *mild* or *benign*, and *putrid* or *malignant*. It is commonly divided into four stages, 1st, the febrile; 2d, eruptive; 3d, maturative; 4th, declination or scabbing.

Symptoms of the 1st species. Pyrexia of the synocha type; pain in the head and loins; soreness of the abdomen; vomiting; drowsiness; slight convulsions. On the third day, generally, there appear, first on the face, and successively on the inferior parts until the fifth, small red spots: with the accession of the eruption there is a remission of the fever: about the fifth or sixth day, the spots have grown into pimples, surrounded with a rose coloured base, having upon the summits a small vesicle containing a colourless fluid. When the pustules are numerous, the face swells, the throat is sore, the eyes are closed, and a ptyalism ensues. About the eighth or ninth day, pustules

are fully formed, containing opaque matter: about the eleventh, the swelling of the face, &c. subsides, and falls upon the feet; the pustules soon after break, discharge their matter, and form a dry scab, which soon falls off, leaving pits or marks upon the skin, in proportion to the severity of the symptoms: by the seventeenth, all symptoms usually depart. It is seldom dangerous.

Symptoms of the 2d species. Typhoid fever, with all the symptoms of the first species in an aggravated form, coma, delirium, ptyalism, difficulty of deglutition, and in children, diarrhoea and convulsions; the pustules are irregular in their progress, preceded by an efflorescence upon the skin, are small, and run into each other, the remission of fever only partial. Maturation appears early but the pustules are flattened, and contain a brownish fluid instead of pus; the pustule has no rose coloured base. About the ninth day, there is an exacerbation of pyrexia, called *secondary fever*: about the eleventh the swelling departs from the face to the hands and feet, the pustules burst, pour out their contents, the scabs dry, fall off and often leave the face dreadfully marked, and induces ophthalmia, cataract or scrophula, or petechia, passive hemorrhages and other symptoms of putrescency come on which terminate fatally about the eleventh day.

Causes. Specific contagion, inoculation. *Diagnosis.* From the chicken pox by the latter containing serum and not matter and by its declining on the fifth day, the former not till the eleventh. *Prognosis.* Favourable. The distinct species unless it occurs during pregnancy or approximates to the confluent swelling of the face and hands and feet at the proper periods. Unfavourable. The confluent species, violence of the eruptive fever, delirium, and other symptoms, sudden subsidence of the swelling upon the face, &c. Suppression, ptyalism, depression or lividness of the pustules, petechia, &c.

Treatment. In the outset of the complaint if the fever is high and of the synocha type, bleeding, caustics, purging, diaphoretics, and the antiphlogistic regimen. As the number of pustules, and consequently the severity of the disease, depends upon the degree of fever, we are to endeavour to lessen it by all possible means. In addition, then, to what is just recommended, the patient should be freely exposed to cool air, and his body effused with cold water, two or three times a day if the symptoms do not abate. This practice may be pursued up to, and during the period of the secondary fever, if febrile action continues. But if upon the remission of the eruptive fever, the eruption is slow or imperfect, it will be proper to re-

sort to external warmth, pediluvium, cordials and nutritious diet. So too upon the accession of the secondary fever if the severe symptoms be present. Violent pain in the head, coma, local congestion of the brain or other viscera, to be relieved by local bleeding, blistering, &c. : profuse perspiration to be moderated by cool air, cold and acidulated drinks : diarrhoea to be restrained, only when excessive : irritability to be allayed by opium ; vomiting by the effervescing mixture and opium ; the eruption, if it needs, attended with rigors and convulsions, to be restored by musk, camphor, opium, ammonia, blisters, wine, &c : gargles and blisters for the sore throat : the face and eyes to be frequently washed with milk and water, and anointed with oil or soft ointment : those who believe that the absorption of matter causes hectic fever, advise the pustules to be opened when matured : the child's hands to be tied down, to prevent it from rubbing the pustules of the face, which would increase the deformity of the skin. The eyes towards the close to be washed with the collyriums advised for ophthalmia. The putrid and malignant symptoms often occurring in the confluent species, to be treated as typhus gravior. Those who have perused Dr. Armstrong's works may, however, be disposed to practice differently. After the recovery mercurial purges are proper, wet and cold to be avoided.

Should it ever be proper to inoculate the small pox, which greatly mitigates the disease from casual infection, the patient should be freely exposed to the air, take every other day a mercurial purge and abstain from meat and fermented liquors, and indeed proceed in every respect as when taken in the natural way. The system should be decidedly affected or the patient is not safe, for a pustule may be produced on the arm which will yield genuine matter and yet be entirely local. The same may happen in vaccination.

POX, VENEREAL. See *Venereal Disease*.

PRICKLY ASH. *Xanthorrhiza*. (*Xanthorrhiza apiifolia*.) The root.

PROCIDENTIA OR PROLAPSUS ANI. See *Anus*.

PROSTATE GLAND, *Diseases of*. Phlegmonous Inflammation. This is attended with pain, heat, throbbing, and soreness in the perineum, and requires the application of leeches, evaporating lotions, purges, and the antiphlogistic regimen. It terminates in resolution or suppuration when the matter may be evacuated externally into the urethra or the rectum. When suppuration is evident emollient poultices and fomentations will be proper.

Scirrhus enlargement. This is attended with difficulty in voiding the urine and feces, a discharge of mucus from the rectum and a sensation as if a part of the stool remained unevacuated. There is also a soreness upon pressing the gland externally and instruments can with difficulty be passed into the bladder. The pain is not much increased by riding or jolting as in calculus, neither does the pain come on in distinct paroxysm. It chiefly occurs in old persons and but rarely goes on to ulceration. The enlarged gland can be often felt in the rectum. The middle lobe is commonly the part enlarged, which, projecting forwards, increases the curve of the passage at this part and impedes the passage of the common catheter into the bladder. There is therefore a necessity for using a catheter, which is three or four inches longer and having a much greater curve than the common one as recommended by Mr. A. Cooper. The common may, however, be facilitated by depressing its handle well between the thighs just before it reaches the gland. When one of the lateral lobes is enlarged it projects over to the opposite side of the urethra, causing a lateral curve of the urethra extremely difficult for any catheter to pass. If an instrument meets with obstruction at seven inches from the orifice of the urethra, there is probably a stricture, but if it becomes obstructed beyond that we may infer that the obstruction is caused by the disease under consideration.

Treatment. If heat, pain, and soreness be present, leeches, purges, and cold lotions will be proper. But if this is not the case, we are to pass a catheter twice a day, administer at night two pills, each containing three grains of the blue pill, and the same quantity of extract of hemlock, and a mass of opium and hemlock passed nightly into the rectum. Abscesses and ulceration are sometimes caused by stricture of the urethra which recover upon the removal of the cause. The Prostate is sometimes affected with scrophula; its ducts occasionally contain calculi. Consult *Baillie's Morbid Anatomy*; also *Home on Stricture*, vol. 1, and *Diseases of the Prostate Gland*.

PRUNES. *Pruna.* (*Prunus domestica.*) The dried fruit. Laxative.

PSEUDOSYPHILIS. See *Veneral Disease*.

PSORA. See *Itch*.

PSORAS ABSCESS. See *Lumbar Abscess*.

PTYALISM. A copious discharge of saliva either from the effect of disease, as in small pox or from the use of certain medicines, particularly mercury.

PUERPEAL DISEASES. Refer to them respectively.

PULMONARY CONSUMPTION. See *Consumption*.

PURGING. See *Diarrhœa*.

PURGING and VOMITING. See *Cholera Morbus*.

PUS, or *Matter*, as it is commonly called, is the fluid formed by the process of suppuration. It is of the consistence of cream, of a whitish colour, mawkish taste, when cold inodorous, and when warm has a peculiar smell. In phthisis, it is of consequence to know if the patient expectorates pus, or merely mucus. The following experiments are said to be decisive. Dissolve the expectorated matter in sulphuric acid and in caustic lixivium, (aqua potassæ) and add pure water to both solutions. If there is a precipitate in both, it is pus, if not, mucus. Pus, on being submitted to the microscope, is found to consist of globules floating in serum; but mucus, is found to be flaky matter.

PUTRID SORE THROAT. See *Cynanche Maligna*.

PYLORUS, *Stricture of*. This is generally caused by scirrhus inflammation of the part, following gastritis, the abuse of ardent spirits, &c. The disease is to be suspected when, preceded by a deep seated pain in that part of the stomach, the food is vomited up about three hours after a meal, or at the period, when sufficiently digested, it may be supposed to be passing into the duodenum. This interruption of the proper functions of the stomach, induces dyspepsia, and as the food does not pass into the intestines in sufficient quantities to supply the demands of the lymphatics to convey nutriment to the blood, emaciation ensues. The stricture increasing, its consequences increase also, till the patient is at length destroyed. We can only palliate urgent symptoms, by means of purgative clysters, and directing nutriment composed of soup, jellies, arrowroot, wine, &c. both by mouth and clysters; exhibiting opium to allay pain; abating thirst by soda water, draughts, &c. Cicuta and other remedies for scirrhus may be tried. Consult *Pemberton on Dis. Abdominal Viscera*.

PYROSIS, or *Water-brash*. A discharge of a thin, watery, or glairy fluid from the stomach, with eructations, pain, &c. It is generally complicated with dyspepsia, cardialgia, and gastrodynia. It occurs chiefly to unmarried females, those who suffer from fluor albus, and those persons who live upon low poor diet. It comes on in paroxysms, in the morning, and when the stomach is empty, with pain, and sense of constriction between the stomach and back. The discharge presently follows, which tastes sometimes acid, but generally insipid, and amounts

from half to a pint in quantity, when the fit goes off. It is never fatal, but is often obstinate.

Treatment. The paroxysms are to be relieved by opium, musk, ether, smoking tobacco, and other antispasmodics: the stomach and bowels are next to be evacuated, followed by chalybeates and other tonics, assisted by the application of a blister to the stomach, by frictions, cold bathing, good air, exercise, a diet of animal jellies, soups, wine, brandy, and some recommend alum, zinc, and other astringents, to brace up the supposed relaxed glands in the stomach, whence the fluid proceeds. But the oxide of bismuth, in doses of five grains thrice a day, seems, at present, to enjoy the greatest reputation. Dr. Pemberton thinks it is connected with diabetes. See his *Treat. on Diseases Abdom. Viscera.*

QUASSIA. Tonic, stomachic.

QUINSY. See *Cynanche*.

RABIES, and RABID ANIMALS. See *Hydrophobia*.

RANULA. This is a swelling upon one side of the tongue, from the size of a pea to a walnut generally, though occasionally much larger. It contains a glairy or fluid resembling the white of an egg, pus, or calcareous substance, caused by obstruction of the excretory duct, of the submaxillary, or sublingual glands. It impedes the offices of speech and deglutition, is not attended with much pain, and does occasionally, spontaneously burst.

Treatment. English surgeons, generally lay open the tumour throughout its whole extent with a scalpel, and carefully press out its contents. The French effect the same object oftentimes with caustics. Cutting away a portion of the anterior part of the sac, is sometimes necessary to prevent a re-accumulation of the fluid. Common encysted tumours sometimes occur in this situation. Then it is judged proper to extirpate the swelling, it will be better to draw it out with a hook and carefully detach it from its connexions near the ranular artery with the fingers, separating the other parts with a knife or bistoury. The hemorrhage, if any, can be easily arrested by filling the cavity with fine lint, and applying a little brandy, solution of alum, or other styptics. Desault advises the mouth of the duct to be opened with a probe, but it seems too difficult an operation to be generally resorted to. Consult *Mem. de l'Acad. de Chirurgie*, tom. 3. *Encyclopedie Méthodique*, Art. *Grenouillette*. S. *Cooper's Surg. Works*.

REFRIGERANTS. Nitre, acids, fruits, cold water, cool air.

REPELLENTS. Applications which cause disease to recede from the surface of the body, as when the preparations of lead are improperly applied to drive back eruptions, &c.

RESOLUTION. See *Inflammation*.

RESOLVENTS. Medicines which disperse swellings, inflammation, &c. by exciting the action of the absorbents; as mineral plasters, mercurial ointments with camphor, muriate of ammonia, vinegar, sometimes poultices and fomentations.

RETENTION OF URINE, MENSES, MECONIUM, &c. See those articles.

RESTLESSNESS, in Pregnant Women. This affection is frequent and very troublesome in the latter months of pregnancy. Nothing affords more relief, than small bleedings and cooling laxatives. Opium possesses little efficacy.

RETROVERSION OF THE UTERUS. See *Uterus*.

RHIZUM, Rhubarb. The root. Laxative, tonic, grs. x. to ℥ij. *Pilulæ rhei compositæ.* Laxative, tonic. *Syrupus rhei*, ℥ss. to i℥. *Syrupus rhei aromaticus.* Laxative, carminative, ℥ss. to i℥. *Syrupus rhei cum senna*, cathartic, ℥ss. to i℥. *Tinctura rhei*, laxative, ℥ss. to i℥. stomachic, ℥i. to ij. *Tinctura et aloes*, laxative, ℥ss. to i℥. *Tinctura rhei et gentiana*, laxative, ℥ss. to i℥. stomachic, ℥ij. to iv. *Tinctura rhei dulcis*, laxative, ℥ss. to i℥.

RHEUMATISM. Rheumatismus. Of this disease there are two species. The *acute*, attended with fever, inflammation, and acute pain; and the *chronic*, having pain without fever or inflammation.

Symptoms of the acute. Synocha, with a full hard pulse; high coloured urine; costiveness; white tongue; restlessness, soon followed by acute pains, tension, and inflammation, in the shoulders, ankles, or other of the larger joints. The pain removes suddenly from one joint to another, leaving all swollen and inflamed, though in a few cases the disease is confined to one or two joints only. In the evening there is a general exacerbation of all the symptoms. The blood drawn, exhibits a remarkable degree of buffiness. There is also profuse sweating over the body, while the joint in pain remains dry. Its tendency to metastasis is remarkable, indeed no muscular part is exempt from its visitations, not even the diaphragm, heart, intestines, intercostal muscles, &c. The disease gradually declines, sometimes degenerating into the chronic form, but rarely proving fatal, excepting the metastasis to some

vital part, be very sudden and vehement. It may, however, linger out several weeks.

Causes. Vernal and autumnal seasons; age from puberty to fifty, in the acute; hereditary predisposition; bodily structure, as thin delicate persons; irregularity in diet; excessive perspiration; (Dr. Scudamore) variable atmosphere and exposure to wet and cold, are exciting causes. An inflammation of tendinous expansions or aponeurosis covering muscles, ligaments, nerves, &c. is said to be the proximate cause. Persons having been once attacked, are very liable to its returns. *Diagnosis.* From gout, by its not coming on so slowly, or being so fixed to one part; by its mostly falling on the larger joints, while the gout affects the smaller; by the absence of the premonitory or dyspeptic symptoms, and the formation of chalky concretions. *Prognosis.* Favourable. A deposit of latritious substance in the urine; eruptions on the skin; epistaxis. Unfavourable. The inflammation becoming erysipelatous, assuming a dark red, followed by vesications; metastasis to vital organs. Rheumatism rarely proceeds to any of the common terminations of inflammation except resolution, which seems to justify Dr. Scudamore and others in saying that it is a specific inflammation. A serous or gelatinous effusion now and then takes place.

The *chronic species* is attended with pain, but without fever or inflammation; shifting from one joint to another, but seldom to vital parts; the patient extremely liable to future attacks, and feels more or less rheumatism on every approaching change in the weather. Sprains, contusions, fractures, and gun-shot wounds, are frequent causes of this species, but more especially exposure to wet and cold. The joints are often left weak, rigid, oedematous, and sometimes paralytic.

Treatment of the acute. The first indication is, to reduce the tone of the vascular system by bleeding, purging, and adopting the antiphlogistic regimen. The second, to diminish the inflammation and lessen the sensibility locally, by leeches, cupping, cold evaporating lotions; and opium, hyoscyamus, digitalis, &c. internally. Dr. Scudamore earnestly recommends his evaporating lotion. See *Gout*. A common, or resolvent poultice may be applied at night, to one or more of the most painful joints. Blisters and sudorifics are of doubtful efficacy. The cinchona bark was recommended by Dr. Fordyce in the outset of the attack. It is very useful after bleeding and other evacuations, and the activity of the symptoms are somewhat subdued. Dr. Thomas joins it with nitre. About this period,

compresses and bandages will be useful, as recommended by Dr. Balfour, of Edinburgh; also subsequently liniments. In very many cases the digestive functions are disordered, they must be speedily regulated by emetics, purges, and calomel and opium in small doses, or the blue pill.

Treatment of the chronic species. Bleeding is not necessary, unless the pulse be full and accelerated. Stimulating sudorifics, as guaiacum, ammonia, turpentine, mustard-seed, &c. are proper; also alteratives, as mercury, antimony, sulphur, sarsaparilla, &c.; also camphor and opium, and in obstinate cases the arsenical solution. Externally, blisters, issues, warm bathing, fomentations and vapour rubefacients, opiate plasters and liniments, galvanism and electricity, defending the affected parts with flannel or oil skin. The patient to reside in a moderate and dry atmosphere, to take bark and other tonics, with wine and nutritious diet; but to prescribe solely for a sense of weakness is in most cases delusion; the state on which weakness depends must be removed before approach can be made to recovery. Most 'tonic' medicines are useless, mislead physicians, tantalize patients, and oppress their digestive organs. Compressing the large arteries with tourniquets has been found useful; also percussion, compresses, and very tight bandages, as advised by Dr. Balfour. If a syphilitic taint be present, that must be treated accordingly.

Lumbago which attacks the loins, and *sciatica* the sciatic nerve, are of the nature of chronic rheumatism, and require the same treatment. Caustic issues and blisters are very proper. The blisters in *sciatica*, should be applied to the inside of the thigh, a little above the knee. The vapour bath is also efficacious, and the most convenient form of using it, is by means of a boiler, with a tube affixed to it, to convey the steam to the part. In this manner the part may be steamed or fumigated half an hour, daily. Camphor dissolved in ether is a good application; also pouring a kettle of warm water over the part daily. Frictions with acetic ether, is a good French remedy. Consult *Drs. Scudamore and Balfour on Rheumatism.*

RICKETS. See *Bones, Diseases of.*

RIGORS. A chill. A shivering. In fever it is followed by increased heat and flushings; in inflammation it denotes the formation of pus.

RING-WORM. This is a cutaneous and very infectious disease, chiefly occupying the scalp, though it may extend to other parts of the body. It is most frequent among children, by whom it is communicated to each other, by using the same comb, wearing each other's hats;

sleeping in the same bed, &c. It first appears in a very small circle of red pimples, which, by degrees, increases in diameter, and is followed by other circles until the whole scalp is covered, when glandular swellings and suppurations will ensue. The pimples exude an acid fluid, which causes a violent itching, contaminating the adjacent parts; the hair drops off on the slightest touch, and a branny scurf forms. The sources of infection should be avoided when it appears in schools.

Treatment. Similar to scald head.

RISUS SARDONICUS. See *Laugh, Sardoniac*.

ROSE. *Rosa.* The petals. Astringent. *Infusum rosa compositum*, tonic, astringent, ℥ ij. to iv. *Aqua rosarum*, used as a collyrium.

ROSEMARY. *Rosmarinus.* Stimulating. *Oleum rosis marini*, ℥ ij. to v. *Spiritus rosis marini*, ℥ i. to ℥ i.

ROSEMARY-MARSH. *Statice.* The root. Powerfully astringent, in diarrhoea, and cholera infantum: and in decoction, as a gargle in ulcerated sore throat.

ROCHELLE SALTS. See *Soda*.

RUBEFACIENTS. Applications which make the skin red. See *Liniments*.

RUBEOLA. See *Measles*.

RUPTURE. See *Hernia*.

SAGO, Boiled in milk or water, with sugar and wine forms a nutritive jelly.

ST. ANTHONY'S FIRE. See *Erysipelas*.

ST. VITUS'S DANCE. See *Chorea Sancti Viti*.

SALEP, Similar to sago.

SANIES. An acrid, thin, serous discharge, from fistula, diseased bone, unhealthy wounds, &c.

SARCOCELE. See *Testicles, Disease of*.

SARCOMA. See *Tumours. Lotions and Ointments*, see them.

SARSAPARILLA. Alterative, antivenereal, diaphoretic. *Decoctum sarsaparillæ*, ℥ iij. to iv. *Decoctum sarsaparillæ compositum*, ℥ iij. to iv.

SCABIES. See *Itch*.

SCALDS. See *Burns*.

SCALD-HEAD. *Tinea Capitis.* Porrigo, by Willan. This is a disease peculiar to the scalp, is infectious, and principally confined to children, among whom, it is propagated in the same way as Ring-worm. It consists of an eruption and chronic inflammation, spreading until the entire scalp is corroded and beset with a scabby eruption. It arises from want of cleanliness, wholesome nutritious food, and bad nursing.

Treatment. The head to be closely shaven every four or five days, washed every night and morning with warm soap and water, and either of the following ointments applied. R. Picis liquid. ℥viij. Cerae. flav. ℥ss. Sulph. sublim. ℥ij. m. f. Unguentum. R. Ungt. picis. liquid. ℥ij. Hydr. oxyin. grs. vj. m. A lotion may be applied previous to the ointment, composed of zinc and sugar of lead, each half a drachm to six ounces of water, or R. Tabaci. ℥ij. Aqua. ℥j. coq. ad. ℥ss. et colatenaē adde Aq. Potass. subcarb. ℥j. m. The patient should wear an oil silk cap. Fine charcoal powder, sprinkled over the head night and morning, is a good application. The French use an ointment composed of the hydrosulphuret of potass; also, after poulticing, an ointment of caustic potass and oil, or lard, which causes the hair to fall off, which is speedily reproduced after the cure. The *prunæ viæ* must be evacuated, and alteratives given in obstinate cases, as a grain of calomel every night, or the blue and Plummer's pill; also decoction of sarsaparilla; also absorbents, should acidity prevail. Sulphuric acid internally has been found very efficacious. The diet should be nutritious, avoiding fish and salted provisions. Change of air. If the glands of the neck swell, or other ill effects, the consequence of suddenly drying up the eruption, frequent purges, and the application of an issue on the back of the neck will be proper. Consult *Willan on Porrigo and Impetigo*.

SCARIFICATION. The operation of making little cuts or punctures with a lancet, for the purpose of drawing blood from inflamed surfaces, evacuating the fluid in anasarca, or the air in emphysema.

SCARLET FEVER. See *Fever*.

SCIATICA. See *Rheumatism*.

SCIRRHUS. See *Cancer*.

SCORBUTUS. See *Scurvy*.

SCROPHULA. *Struma, or Kings' Evil.* This disease is chiefly seen in children and young persons. Its most common form is a swelling of the absorbent glands, particularly the neck which go on to a very slow and imperfect suppuration, discharging a curdly matter, composed of flakes of coaguable lymph, and serum, slow in healing. It is specific and hereditary. As in other hereditary diseases, it will sometimes lie dormant during one generation, appearing only in the grandfather and the grandchild. It is rarely seen without the parallels of 45 and 60 degrees of latitude, and is particularly prevalent in places where there is much moisture and vicissitudes of atmosphere, in mountainous districts, and in cities. Hence its frequency

in the islands of Great Britain, in the mountains of Switzerland and Scotland, and in London, Manchester, &c. Fortunately in the United States the disease is not frequent. Sir Astley Cooper, in his lectures says, that in young children the glands of the mesentery and of the neck, are the most frequent seats of scrophula; that from the age of seven to fourteen or fifteen the joints, in the form of white swelling; and from fifteen to twenty-five the lungs, in the form of tubercular consumption, after which it is rarely seen. Scrophula is not contagious.

The characteristics of scrophula are, a handsome and delicate person, with fine skin, light hair, fair complexion, thick upper lip, with an acuteness of intellect and capacity for learning. They are seldom robust, nor can they endure much fatigue, and are very liable to catarrh.

Causes. Original predisposition from hereditary taint or other causes not known; cold damp air; want of exercise, proper food, cleanliness, or warm clothing; indolence; or whatever tends to general debility. It depends on original debility. It is often, however, from a latent state, excited into action by blows, falls, or other injuries; also by small pox, measles, &c. The different appearances of scrophula are spoken of under *White Swelling in the Diseases of Joints. Mesentery Glands. Rickets. Consumption, &c.*

Symptoms of Scrophula in general. Scrophula is attended by a specific inflammation, terminating in resolution, suppuration, or ulceration. The first appearance exhibited by a scrophulous gland, is a soft, doughy swelling, the covering of which becomes thickened. After some time, the doughy character is exchanged for one of elasticity and fluctuation, with a hard and circumscribed base; the skin is slightly red. If the tumour be opened at this stage nothing will escape but blood. When it has advanced farther, it loses its elasticity, becomes soft and flaccid, and freely fluctuates. If it be opened now, or bursts with its own accord, the peculiar curdly matter of scrophula will be discharged; tumour will subside, while the aperture enlarges. The edges of the aperture are smooth, obtuse, and overlap, are of a purple colour hard and tumid; the granulations soft; the pain inconsiderable. After a time the wound begins to cicatrize. But when a joint is diseased, or a bone affected, the ulcer has a more fiery appearance, its margins soft, elevated, and retorted, the pain much severer, the surrounding parts inflamed. Sometimes one ulcer will heal, and another make its appearance elsewhere, sometimes too, a gland will remain permanently indurated, and enlarging so much as to require extirpation.

Treatment, constitutional. It being admitted that this disease depends upon original debility, it becomes necessary to restore the tone of the system without delay. White swellings, however, often require topical blood-letting, purging, and the antiphlogistic regimen. But when inflammatory symptoms are not present, we are, besides exhibiting tonic medicine, to call in the aid of three great auxiliaries, 1st, Good air, for the benefit of which the child should be removed into the country, choosing a dry healthy situation. 2d, Exercise. To derive the full advantage of exercise, the child should be allowed to walk, run, jump, tumble, and partake of any sports or amusements it pleases, which do not produce too much fatigue. 3d, Nourishment. Here the object is to convey into the stomach the greatest quantity of nutriment in the smallest bulk, such as animal jellies, arrow root, sago, tapioca, wine, &c. The medical treatment must consist of a small dose of calomel twice a week, to promote a healthful state of the digestive functions, and the secretions generally, together with bark, chalybeates, and other metallic tonics; ammonia, &c. liberally. Cold, and sea bathing, warm clothing in cold weather. The solution of muriate of barytes, in doses of from three to ten or twelve drops twice a day has been found useful, also lime-water and alkalies. The extract of hemlock is another remedy.

The local treatment. Upon the first appearance of swelling, it should, if possible, be resolved. For this purpose discutient lotions, soap and mercurial plasters; poultices of sea-weed or hemlock; sea bathing; electricity; blisters, &c. will be proper; also leeches, should there be much heat or inflammation. If, however, it proceeds to the formation of pus, the abscess should be allowed to burst, or opened by a small aperture. After which an emollient or hemlock or carrot poultice may be applied, also saturnine lotions. If the ulcer appears sluggish, the application of solution of alum or sulphate of copper, and the ointment of nitrate of mercury will be proper. Consult *Cullen's First Lines*. *White's and Russell's Treatises*. *Burns' Dissertations*, &c.

SCROTOCELE. *Scrotal Hernia.*

SCURVY. *Scorbutus.* This disease makes its appearance on board ships upon long voyages, and in garrisons and besieged places, where the men live much upon salted provisions without a due quantity of vegetables. It chiefly takes place in cold climates. It is not so frequent as formerly: its prevention being better understood.

Symptoms. Heaviness, weariness, lassitude, dejection of spirits, anxiety at the præcordia, debility. As the dis-

ease advances the countenance becomes sallow and bloated, the respiration hurried, the teeth grow loose, the gums bleed, are spongy and swollen, the breath is very offensive, livid spots appear upon different parts of the body, old wounds break out afresh, and old fractures disunite. Wandering pains are felt at night, the skin is dry, the urine scanty, changing vegetable blues green. The pulse is small, frequent, and afterwards intermitting, but the intellects are not much affected. *Nyctalopia*. At length the joints become swollen, rigid, and contracted; great emaciation ensues; hemorrhage from the nose, ears, &c.; fetid evacuations, diarrhoea, death. On shore, the symptoms are not so severe, or the cases so fatal.

Causes. To the want of fresh provisions, vegetables, and acescents may be added bad air, uncleanness, indolence, or too much fatigue, despondency, or any thing that induces debility. The proximate cause, some assert to be a preternatural saline state of the blood, others, a debilitated state of the solids, deficiency of oxygen, &c. Our *prognosis* must depend upon the degree, and violence of the symptoms, the distance from land, the prospect of obtaining fresh provisions and vegetables.

Treatment. The indications are, to obviate the putrid state of the system, and to restore it to its former vigour. The first is fulfilled by a diet of fresh animal and more particularly vegetable food, salads, ripe subacid fruits, by beverages of punch, lemonade, milk, malt liquors, spruce beer, &c. It is preferable to keep scorbutics on board, some days after their arrival in port, till they have grown accustomed to the different state of the atmosphere; as the greater density of the land air, has, in some cases, proved suddenly fatal by suffocation. But when vessels are at sea, these remedies are not to be obtained or only in a sparing degree. Most vessels now bound on long voyages take with them lemon or lime juice, of which the scorbutic may take an ounce per day, mixed with sugar and water, improved by the addition of wine. The acid may be gradually increased to three or four ounces, provided it does not affect the bowels. Citric acid, in the form of punch. The nitrate of potass in vinegar, is a most powerful antiscorbutic, (℥iv. to ℥ij. of which ℥ss. to i. three or four times daily, may be taken, a few grains of camphor to be added if it affects the bowels.) The blotches and ulcerations to be bathed with the same composition. Bleeding is not admissible in scurvy, but the bowels are from time to time to be gently evacuated with cream tartar, tamarinds and the like. Diaphoretics are also occasionally proper. Diarrhoea or hemorrhages to be restrained by

astringents and styptics. The ulceratous and rigid joint will always be relieved by bathing in warm vinegar and water, applying emollient fomentations and poultices. The fomenting and antiseptic poultices may be also useful. The gums to be relieved by gargles of alum, borax, myrrh, bark, &c.

The second indication is effected by the exhibition of cinchona, mineral acids, chalybeates, and other tonics; by free air, moderate exercise, warm clothing, a generous nutritive diet, wine, avoiding cold and dampness.

These affections of the skin called scorbutic eruptions, which arise without obvious cause at stated intervals, in peaceful ulcerations of the skin, producing a discharge of lymph and abundant desquamation, are relieved by the Cheltenham waters, and when inveterate, by alteratives of mercury, antimony, &c.; also nitric acid, spruce beer, decoct. ulmi, with vegetable and milk diet, and sea bathing, and the internal and external use of sulphuric acid. R. Acid. sulph ʒss. Ung. simp. ʒj. M.

The prevention of scurvy at sea, consists in carrying provisions and water of the best quality, and fresh put up, by carrying as much live stock as possible, by having the insides of the water casks charred or burnt, or the water purified by charcoal; by having an abundant supply of acids, fruits, rice, potatoes, and other vegetables regularly served out to the men every day or two; by diverting the minds of the seamen with music and sports each evening; by often fumigating and ventilating all parts of the ship; by scraping or sweeping the decks below frequently and not wetting them in damp weather; by drying the atmosphere below by chaffing dishes of coals, &c.; by causing bedding every dry day to be aired, and allowing no man to turn in in his wet clothes; by cold bathing; by preventing the crew from enervating themselves while in hot climates, with spirituous liquors and other excesses. Consult Dr. Blane on Dis. of Seamen. Dr. Trotter in the Med. and Physic. Jour. vol. 4. p. 154. Sir John Pringle. Dr. Lind, &c. Parsons on Dis. of Seamen.

SEDATIVES. Opium, hyoscyamus, hemlock, digitalis, camphor, lead, nitre.

SEMEN, Involuntary or nocturnal emission of. Gonorrhæa Dormientium. This proceeds from general debility, weakness of, and sometimes repletion of the seminal vessels. When proceeding from weakness, excess in venery or onanism is commonly the cause.

Treatment. Although often difficult to remove it, the cure must be attempted by directing the patient to avoid

those causes which depend upon his own will; by tonics and nutritious diet, cinchona, chalybeates, and other tonics; by cold bathing, general and local. This disease when proceeding in young men from onanism, often produces dyspepsia, emaciation, lowness of spirits, lassitude, and even suicide. When such a case is suspected, every effort must be made to relieve his melancholy, and to restore his general health, by daily exercise, cheerful company, travelling, &c. But his solitary and pernicious habit must be resolutely abandoned.

SEMICUPIUM. A warm bath for the lower half of the body.

SETON. A kind of issue. It is made by pinching up a fold of the integuments, and passing a seton needle through, armed with a small skein of silk well oiled. If a needle be not at hand, a lancet may be passed through the fold and the silk carried through by means of an eyed probe. The silk is to remain untouched, until loosened by suppuration, when it is to be moved on, and the part which has been in the wound cut off. This must be repeated daily, attaching a new skein of silk to the old, as fast as it is exhausted. Should the discharge not be sufficient, a little powdered cantharides must be mixed in the oil or ointment, which should always be used to moisten the portion of silk about to be drawn into the wound.

SHINGLES. See *Erysipelas*.

SIBBENS or SIVVENS. See *Yaws*.

SIGHT, Dulness of. See *Amaurosis*.

SINAPISM. A mustard poultice, generally applied to the feet in fevers, &c. delirium, &c.

SINGULTUS. See *Hiccough*.

SINUS. A long narrow canal, leading to some cavity, abscess, or diseased bone. It generally requires to be laid open, throughout its whole course, with a bistoury, so that it may heal by granulation from the bottom.

SMALL POX. See *Pox*.

SPHACELUS. See *Mortification*.

SPINE, Diseases of. See *Vertebræ*.

SPINA BIFIDA. *Hydro-Rachitis.* In this case there is an imperfect closure of the spine, so that the membrane, or continuation of the dura mater, investing the spinal marrow, from want of support, protrudes through the preternatural opening between the bones, and becomes filled with a fluid, sometimes colourless, at others, turbid or bloody. The defect of the spine is congenital, and exists in the cervical, dorsal, or lumbar vertebræ, but generally it is situated at the junction of the lumbar with the sacrum. The opening can be distinctly felt with the fingers. It is

often connected with hydrocephalus, so that an enlarged head has been seen to diminish upon evacuating the tumour. It is seldom seen but in children, as it, usually, soon proves fatal. The parts below the tumour are often paralyzed, and the stools and feces sometimes pass involuntarily.

Treatment. The first successful cases of spina-bifida were published by Sir Astley Cooper, in the *Medico-Chirurgical Transactions*, vol. 2. p. 323. Two of these cases I saw, when shown by Sir Astley to his class in 1811-12. In one he had adopted what he called a *palliative treatment*, namely, that considering spina bifida as a species of hernia, he reduced the swelling, or in other words, returned the fluid within the channel of the vertebral column, and confined it there by means of a truss, which at first, produced some degree of dulness and convulsions. In the other, Sir Astley had adopted what he called a *radical treatment*, which was, (not finding that the fluid could be easily reduced) to puncture the tumour with a needle, and to evacuate the fluid: this he had repeatedly done, till at length adhesion had taken place between the sac and the preternatural opening of the spine. The cure was complete, the tumour being entirely obliterated, leaving nothing but the integuments in a wrinkled and flabby state. *Warner's Cases of Surgery.* *B. Bell's System of do.* *Abernethy's Surg. and Physiological Essays.*

SPINA VENTOSA. See *Bones, Diseases of.*

SPLEEN. *Diseases of,* see *Inflammation of Spleen.*

SPONGE. A soft, light, porous, compressible substance, absorbing, by capillary attraction, a large quantity of any fluid; hence its utility in absorbing the acrid or sanious matter of sores; and for freeing parts from blood during operations, and for suppressing hemorrhages when properly applied by compression. It was formerly much used as lint.

SPONGOID INFLAMMATION. See *Fungus Hæmatodes.*

SPRAINS. These mostly happen to the ankles, knees, wrists, and other joints, and the parts which suffer are the ligaments, tendons, and small blood vessels, the latter are frequently ruptured, and the blood then extravasated, coagulates, becomes livid, black, and before it goes off green, yellow, &c. called ecchymosis. Sprains are attended with heat, pain, swelling, &c. and effusion of serous fluid into the cellular membrane, &c. In the treatment we are to prevent, or moderate the inflammatory symptoms in the outset, by plunging the part into cold water, bathing it with astringent applications, as spirits,

vinegar, wine-lees, &c. If, however, inflammation ensues, we are to remove it by the application of leeches, saturnine lotions, poultices of meal and vinegar, into which add a little sugar of lead; by purges and diaphoretics if fever should arise. The limb to be kept in a horizontal position. The tone of the parts may be restored by rubefacient liniments and bandages. Rigidity to be removed by frictions and electricity.

STEATOMA. An encysted tumour, containing fat.

STERTOR. A snoring noise in breathing, symptomatic of apoplexy, or compression of the brain.

STERNUTATORIES. Articles which excite sneezing as snuff, pulv. assuri. comp. white hellebore, &c.

STIMULANTS. Ether, alcohol and other spirits, wine, volatile oils and alkalies, musk, pepper, mustard, horseradish, aromatics, seneka, turpentine, assa foetida, electricity, galvanism, frictions.

STOMACHICS. Gentian, columbo, quassia, chamomile flowers, cinchona, angustura bark, orange and lemon peel, logwood, dandelion, hop.

STONE and GRAVEL. See *Gravel and Stone*.

STRANGURY. See *Urine*.

STRICTURE. A contracted state of some tube or duct, as the urethra, oesophagus, &c. See those parts. Also the part that binds the gut in strangulated hernia.

STRUMA. See *Scrophula*.

STYPTICS. Articles which are supposed to possess the power of stopping hemorrhage. *Internal.* Alum, lead, catechu, kino, and other astringents. *External.* The same, together with sulphates of copper and zinc. These may be applied to the part in the form of powder or in solution. He may also employ sponges, pressure, ligature about the vessel, alcohol, vinegar, mineral acids, cold air, cold water, and ice.

SUBSULTUS TENDINUM. A spasmodic twitching of the muscles and tendons, occurring in advanced stages of fevers and surgical diseases, and is considered an unfavourable symptom. It occurs also, occasionally, in the limbs, in recent fractures, particularly in robust habits, and is then relieved by bleeding and opium. See *Fracture*.

SUDORIFICS. Medicines which produce perspiration; as the preparations of antimony, volatile alkalies, sulphuric and nitrous ethers, compound powder of ipecacuanha, guaiacum, snake root, seneka, blood root, meze-reon, camphor, warm and vapour baths, wine whey, &c. Their operation is much promoted by pediluvium, covering the patient up in blankets, and giving him copious draughts of herb teas, or other tepid diluents.

SUPPOSITORIES. A bolus or globular medicated body, introduced into the rectum, containing opium, in obstinate diarrhœas, hemlock in scirrhus, prostate, &c.

SUPPRESSION OF URINE, MENSES, &c. See those heads respectively.

SUPPURATION. By this term is meant, that process which forms the peculiar fluid called pus, in any part of the body, being always preceded by inflammation. It is indeed the second termination of inflammation, and is marked by rigors, subsidence of the heat, throbbing, and other symptoms of inflammation. A conical eminence, or pointing, appears upon the surface of the tumour, which has a distinct fluctuation, and a whitish or yellowish appearance. The rigors are most distinct and perceptible in large abscesses, and when situated in any of the viscera. The surface of the swelling too, is often œdematous. The opinion, that the action of external air causes suppuration is not true, neither do dead animal substances become converted into pus, as bone, extravasated blood, diseased cellular membrane, &c.; for those are frequently discharged from wounds, after remaining in them a length of time, having sustained no other diminution than that caused by absorption. "The modern doctrine of suppuration is, that the pus is separated from the blood, by the inexplicable operation of the secreting arteries, just as an ordinary secretion takes place; and that the peculiar mode of action in the arteries, is the reason why pus should be separated from the circulation, rather than coagulating lymph, mucus, &c. It is farther believed, that the solids never suffer any dissolution, so as to enter into the composition of pus; and that the deficiency, frequently apparent in them arises from absorption. The arteries in producing a fluid so dissimilar from blood, and of which, at least, it must be considered as a new combination, seem to assume all the power of a glandular secretion." (*S. Cooper.*) For the qualities of this secretion, see *Pus*. Pure pus, when secreted from healthy parts, is bland and harmless in its nature, so that when it remains sometimes in a cavity it is constantly absorbing and secreting by the surrounding surface. But when the adjacent parts become affected with inflammation, the pus loses its natural thickness and whiteness, becomes more limpid, transparent, fetid, and disposed to putrefy. In this state it is termed *sanies*, is irritating to the surrounding parts, so much as to cause them to be absorbed. But it never corrodes. These appearances are met with when the bone is diseased. In scrophulous abscesses and indolent ulcers the matter is flaky. In many specific

diseases, as small and chicken pox, chancre, &c., the matter has an healthy appearance ; in such instances, the specific poison exists in an impalpable form. Good pus is most readily formed near the source of circulation. Matter always has a tendency towards the surface ; thus if matter forms immediately external to the peritoneum, it makes its way through the abdominal muscles, adipose substance and integuments, rather than through the fine membrane just beneath it. When matter, however, is situated under fasciæ, they offer so much resistance to its progress, that it diffuses itself. All those intervening substances between the matter and the surface are absorbed as the matter proceeds.

Abscesses are always bounded by a cyst, which is more or less thickened, according to the length of time it has existed. This cyst is, as has been said before, a secreting and absorbing surface, secreting new pus and absorbing the old continually. The cyst is formed of coagulable lymph, which is deposited around the collection of matter and becomes organized. Large collections of matter are often entirely removed by the process of absorption, particularly in chronic abscesses. The use of the cyst is, to prevent the matter from spreading, and to keep it within due bounds. In acute abscesses, this cyst is very firm, while in chronic abscesses, it is much weaker. Hence why the former are always circumscribed, while the latter is very diffuse, extending sometimes from one end of the thigh to the other.

Treatment. A part in a state of inflammation, and prior to suppuration, of course requires the applications of cold washes, local bleeding, purging, &c. &c. as stated under inflammation ; but as soon as it is evident, that matter will, or has already formed, or in other words, suppuration has taken place, it is usual to lay aside such remedies, and to resort to emollient poultices and fomentations, and sometimes to exhibit bark, wine, &c. to hasten the completion of the abscess. Poultices, from their keeping the integuments soft and yielding, as well as from their soothing effect upon the sensibility of the nerves of the part to which they are applied, give great relief when the usual applications for inflammation fail, even if suppuration is remote.

Opening Abscesses. The general opinion is in favour of allowing phlegmonous abscesses to break of themselves, rather than to open them, or at any rate to wait until the skin has become quite thin before the surgeon interferes. But when the matter is situated under an aponeurosis, or in tendinous parts, as the fascia lata of the fore arm, &c.

it diffuses itself, from being unable readily to approach the surface; the same remark applies when matter is in the vicinity of a joint, or within the cranium, &c. In all these cases an early and free opening is necessary. In chronic abscesses too, an early opening is necessary; for, having but a weak cyst, it is continually diffusing itself, without inflammation, or showing any disposition to approach the surface. The opening is to be made at the conical eminence or pointing, as it is termed, where the matter presents itself, and in the most depending part, so that the matter may evacuate itself by its own gravity. In chronic abscesses it is best to make the opening obliquely through the integuments, and to evacuate only a part of the pus, as the remainder will often absorb if pressure be made and the patient keep his bowels free. The violent symptoms of irritation attending the opening of one of these abscesses, is to be attributed to the effort nature is making to unite the cyst by adhesive inflammation, and not by the admission of air, as was formerly supposed. Large deep seated abscesses are best opened with a scalpel, small and superficial collections, with a thumb lancet.

After treatment. Continue the poultices until the soreness has subsided, after which they induce debility of the part; dry lint or simple cerate, pledget bandage is then proper. Where there is a redundancy of integument a dossil of lint insinuated between the lips of the wound may be necessary to prevent a premature union. Consult *Hunter on Inflammation. Pott. B. Bell. Kirkland, &c.*

SUPPURATIVES. Applications which promote the formation of good pus, as poultices, digestive ointments, &c.

SUTURES. A suture is a method used for holding the edges of a wound together, by means of stitches, made with a needle and thread, in order to favour an union by the first intention. Sutures were formerly much used, but are now employed in wounds which cannot be kept in close apposition by means of sticking plaster and bandage; as wounds of the abdomen, from the agitation caused by respiration, and from the tendency of the viscera to protrude; also some wounds of the trachea, &c. Sutures receive different appellations, according to the mode of making them; as, the *interrupted*, the *glowers*, the *quilted*, &c.

1st. *The Interrupted Suture.* In which, at each stitch, the two ends of the ligature are brought together and tied. 2d. *The Glover's Suture.* This is executed by introducing the needle first into one lip of the wound from within outwards, then into the other in the same way; in this manner the whole track of the wound is sewed up. This operation is now entirely abandoned except for sewing up dead bodies. 3d, *The twisted suture.* This is explained

under *Hare-lip*. 4th, *The dry suture*. This absurd term means the uniting a wound by means of a sticking plaster. Consult *Le Dran, Sharp, J. and B. Bell*.

SWEATING, *Immoderate. Ephidrosis*. "This is usually a symptomatic affection, but it nevertheless sometimes prevails as an idiopathic disease, and then is commonly owing to general weakness and debility, accompanied with a preternatural determination to the surface of the body. It is generally to be met with in the last stage of pulmonary consumption.

"The cure is to be effected by covering the body lightly with apparel and bed-clothes; by keeping the chamber of a moderate temperature; by determining from the surface of the body, by means of diuretics and gentle laxatives; and, lastly, by strengthening the system by chalybeates and other tonic medicines, cold bathing, and the means advised under the head of *Dyspepsia*, avoiding at the same time too long an indulgence in bed, and a use of warm slops. In the colliquative sweating which attends hectic fever and phthisis pulmonalis, the diluted sulphuric acid is much employed."

Thomas's Practice.

SWELLING of the Lower Extremities in Lying-in Women. See *Phlegmasia Dolens*.

SWELLING of the Lower Extremities in Pregnant Women. See *Edema*.

SWINE POX. See *Chicken Pox*.

SYNCOPE. *Fainting*. Which see.

SYNOCHUS and SYNOCHA. See *Fever*.

SYPHILIS. See *Venereal Disease*.

TÆNIA, or TAPE-WORM. See *Worms*.

TAPPING. See *Paracentesis*.

TAXIS. The operation of reducing a rupture with the hand. See *Hernia*.

TEETHING. See *Dentition*.

TENDO ACHILLIS. See *Achillis Tendo*.

TENESMUS. Powerful, repeated, and ineffectual efforts to pass the feces. It attends dysentery and other diseases, and indicates pressure of mucus and hardened feces in the large intestines, and requires frequent purgatives, clysters, fomentations, mucilaginous drinks, and a diet of jellies, broths, &c.

TENT. A roll of lint for dilating openings, sinuses, &c.

TESTICLES, Diseases of.

HÆMATOCELE. "This signifies a swelling of the scrotum, or spermatic cord, occasioned by blood. The disease is of five kinds, two of which have their seat in the tunica vaginalis; one within the albuginea; the fourth in the

membrane investing the spermatic vessels; and the fifth in the cellular substance of the scrotum. 1st, In letting out the water of a hydrocele, a vessel is sometimes wounded. After the operation, the blood insinuates itself partly into the tunica vaginalis, and partly into the cellular substance of the scrotum, so as to form, in a very short time, a tumour nearly equal in size to the original hydrocele. The blood colours the fluid of the hydrocele, when it is flowing through the canula. 2d, Another species is when the blood is effused in consequence of a spontaneous rupture of a vessel after the operation, and it is entirely confined to the cavity of the tunica vaginalis. The fluid of the hydrocele is not tinged with blood, when it is discharged. 3d, In the third kind of hæmatocele, the blood is extravasated within the tunica albuginea, from the vessels of the glandular part of the testicle. 4th, The fourth arises from a rupture of a branch of the spermatic vein. 5th, The fifth case is of the same nature as ordinary effusions of blood in the cellular substance of other parts of the body. Like them, it is caused by blows, and it yields to similar treatment. The scrotum has been rendered five times larger, than its natural size, by this species of hæmatocele. Richerand, (as I conceive, on insufficient grounds) rejects all the other species of hæmatocele, but the last." *S. Cooper.*

Treatment. "The two first cases may generally be cured by opening the cavity of the tunica vaginalis, removing the effused blood, and applying dry lint to the inside of the membrane. If the quantity of blood were very small, discutients might disperse it, and do away all necessity for operating. The third and fourth are less frequent. The first of these arises from a morbid state of the substance of the testicle, and can only be removed by castration. The fourth species of hæmatocele, or that arising from a rupture of the spermatic vein, is generally caused by great or sudden exertions, contusions, &c. When the case is clearly distinguished from a hernia, attempts must be made to promote the absorption of the extravasated blood, by applying to the tumour the sal ammoniac lotion, or even camphorated liniments. About twice a week, a purgative should also be exhibited. If the case should obstinately resist such treatment, a thing which can hardly occur, an incision must be made into the tumour, and the bleeding point being discovered, it should either be tied, or stopped with a dossil of lint. In the fifth case, or that of blood effused in the cellular membrane of the scrotum, a free incision is the best practice, when the swelling is excessive, or resists discutient means; but, in other instances, it will be sufficient to keep up the scrotum with a suspen

sory, apply camphorated spirit, or the *lotio ammoniæ muriatæ*; and exhibit two or three purgative draughts. Should inflammation of the parts arise, venesection, leeches, and febrile medicines, would be proper, and the best application would then be the saturnine lotion, or (if suppuration were unavoidable) an emollient poultice." *Ib.*

VARICOCELE and CIRCOCELE. By the former of these terms is understood an enlarged, or varicose state of the vessels upon the surface of the scrotum generally, requiring little more than a bag truss, and rarely proceeding to any extent, unless depending upon other disease of the testicle, or spermatic cord, which in such cases must receive primary attention.

The latter term, or circocoele, is a varicose distention of the spermatic veins of the cord, below the abdominal ring, increasing towards the testicle. It causes no inconvenience in its early stage but a slight sense of weight and uneasiness, which is removed by mechanically supporting the testicle. But in more aggravated cases there are pains in the back and loins extending down the thighs, and in some cases a wasting of the testicle. The tumour has a knotty uneven feel, and very much resembles an omental hernia, dilating when the patient coughs, and receding as he lies down. But if the patient be placed in the recumbent posture, and the doubtful tumour reduced into the abdomen by pressure, and the surgeon then places his finger firmly upon the abdominal ring, and directs the patient to rise, if it be a hernia, it will not return, but if it be circocoele it directly appears.

Treatment. A palliative plan can only be adopted, but in common cases nothing more is necessary than to wear a suspensory bandage. It sometimes, however, becomes hot and painful, when leeches, saturnine lotions and horizontal posture are necessary, also the silken bag truss, and suspensory bandage when he resumes his avocations. Few cases are so severe as to require the removal of the testicle. Mr. Pott disapproves of much pressure.

Diseases of the Substance of the Testicle.

SARCOCELE. This term means a chronic, or fleshy enlargement of the testicle. Authors differ as to the extent of its application. Some including cancer, scrophula, &c.; but perhaps it is better reserved for such affections of the gland, as are not specific or constitutional.

Of the Common Vascular, Cystic, and Medullary Sarcoma. The pathological phenomena of sarcomatous affections, are described under the article *Tumours*, which see. It should however be remarked that when the testicle is

affected with sarcoma, it is extremely liable to take on a malignant or cancerous action, which, unless removed, destroys the patient; therefore the operation for extirpating the organ must be performed as soon as the gland is so far diseased as to be unable to secrete semen.

In all cases where the operation is contemplated, the state of the spermatic cord must be taken into consideration, for if that be extensively diseased, if it be hard, knotty, and its parts obscure, attended with darting pains towards the loins, together with indcretions of internal abdominal affection, it is too late to save the patient's life by removing the testicle. Such cases, however, must be carefully distinguished from the comparatively harmless ones of hydrocele of the cord, and circocoele. There are many incipient cases however which may be relieved by the application of leeches, cold saturnine lotions, camphorated mercurial ointment, and other resolvents. Cicuta, mercury, and other alteratives should be tried internally; but very little time should be lost in the use of remedies, should the disease be rapidly increasing. Some cases are extremely slow, while others are very rapid. Sometimes with these affections, there is complicated with them a collection of water in the tunica vaginalis, termed *hydro-sarcocoele*. Here it will be proper to evacuate the fluid, and then to be governed in our farther practice by the state we find the testicle in. A morbid irritability of the urethra, is said to give rise to some cases of indurated testicle, and which is removed by passing bougies. Mr. Ramsden, who speaks of this affection, calls it *sclerocoele*.

OF SCROPHULA OF THE TESTICLE. It is not attended with lancinating pain peculiar to cancer, or its hardness, and the patient exhibits the peculiar characteristics of scrophula. If the testicle be removed, it will, on being cut into, exhibit a white, or yellowish coloured curdly substance, mixed with pus. (See *Baillie's Morbid Anatomy*.) These cases can be often much relieved by the use of calomel, cicuta, sea-bathing, and remedies spoken of under scrophula.

OF CANCER OF THE TESTICLE. This exhibits the same phenomena here, as in other parts of the body, having the peculiar hardness, deep seated lancinating pains, which shoot up the cord towards the loins; the health soon becomes impaired. Dr. Baillie says, that the tumour when laid open, is found to be changed into a hard mass of a brownish colour, intersected by membrana. The natural structure generally destroyed, but cells are frequently observed, containing a sanious fluid, with sometimes a mix-

ture of cartilage. The disease gradually extends to the epididymis, the cord, and to the abdomen if not timely removed by the operation; the only means indeed of saving the patient. In time ulceration takes place, when a foul, deep, cancerous ulcer forms, and a fungus often shoots out.

SOFT CANCER OF THE TESTICLE, or *Medullary Sarcoma*, according to Mr. Abernethy. (See *his Surg. Observ. 2d Ed. Lon. page 56.*) Mr. Hardrop is of opinion, that this disease is none other than fungus hæmatodes. It certainly closely resembles it, and may be treated accordingly. See *Fungus Hæmatodes*.

FUNGUS OF THE TESTICLE. “There is a particular affection of the testicle, in which a fungus grows from the glandular substance of this body, and, in some cases, from the surface of the tunica albuginea. This excrescence is usually preceded by an enlargement of the testicle, in consequence of gonorrhea, a bruise, or some species of external violence. A small abscess takes place and bursts, and, from the ulcerated opening, the fungus gradually protrudes.” If I understand Mr. Cooper it was by his recommendation that a cure should be attempted in these cases by removing the fungus with the knife or by caustic after the previous inflammation had abated instead of resorting to the severe operation of castration as had previously been done. His advice was adopted with success by Sir James Earle at St. Bartholomews Hospital, and Mr. Larvum has since published nine cases in the *Edin. Med. and Surg. Jour.* July 1808, with similar opinions and results.

The testicle like the breast, is subject to the *Hydated* and *Irritable* Tumours. It is also subject to a tumour depending upon gleet and a bad state of the habit.

HERNIA HUMORALIS, or *Inflammation of the Testicle*. The first symptom is generally a soft, pulpy fulness of the part, with pain and soreness. This soon increases to a hard swelling, the scrotum loses its corrugated appearance, becomes red and tense. The pain is now much increased, from the unyielding nature of the tunica albuginea, and the epididymis, particularly at its lower part, is much hardened; the vas deferens is often thickened, and painful when touched, and is apt, after the disease has abated, to remain permanently impervious. There is also severe pain in the loins. Besides the general causes of inflammation for inducing swelled testicle, we particularly enumerate, blows, falls, hard riding, some of the operations for hydrocele, &c. But the most common of all is, irritation in the urethra, either from the improper use of in-

jections in gonorrhœa, or bougies in stricture. In the former case, the ardor urinæ, running, &c. unusually ceases, and remains so, until the hernia humoralis is subdued, when the gonorrhœa returns, and finishes its course in the usual manner, shewing its completely metastatic tendency.

Treatment. It is of the first importance to keep the patient in an horizontal posture, and next to keep the scrotum supported by a bag truss, suspensory bandage, or other contrivance. General, and more particularly local bleeding, should be practised, either by leeches, or by opening the veins upon the scrotum, frequently repeated. Cold evaporating lotions are next recommended, but I must add the testimony of my own experience to others in favour of the employment of emollient poultices and fomentations. Emetics are recommended by Mr. Hunter. Opium is sometimes necessary to relieve the pain. After the reduction of the inflammation, we are, for the removal of the induration of the epididymis vas deferens to advise frictions, camphorated mercurial ointment, electricity, &c. Consult *J. Hunter*.

TETANUS. This disease is defined to be a more or less violent, and more or less extensive contraction of the muscles, attended with tension and rigidity of the parts affected. It consists of two species, 1st, *idiopathic* or that arising spontaneously; and 2d, *symptomatic* or *traumatic*, when arising in consequence of a wound or surgical operation. It is also divided by some authors, into acute and chronic tetanus, the former being very rapid and generally fatal, while the latter is more slow, and affords time for the operation of curative means. When the spasm is confined to the jaw, it is called *trismus* or *locked jaw*; when all the body is affected and becomes rigid, but retains its straightness it is called *tetanus*; when both these are combined it is termed *complete tetanus*; when the muscles of the front of the body only, so as to draw it forwards, *emprosthotonos*; when those of the back, *opisthotonos*; when the body is drawn to one side *pleurosthotonos*. The limbs are also affected.

Symptoms. Stiffness of the back of the neck and jaws, with an uneasy sensation at the root of the tongue; difficulty in swallowing, which in some cases becomes impossible from the fixed state of the jaws, in others, from affection of the muscles of the throat, œsophagus, &c. inso-much that even a bougie cannot be passed down, and the patient is unable to receive food or medicine. There is often a severe pain at the end of the sternum, shooting

thence towards the back. The spasms recur about every ten or fifteen minutes, attended with the most excruciating agony, when after a short time they abate, but do not entirely cease and are instantly brought on again if the patient attempt to speak, swallow, or perform any motion. The appetite, the secretions, and other functions of the body often remain unimpaired, except the bowels which are commonly costive, owing in part, probably to the quantity of opium usually administered. The spasms increasing in severity and frequency, soon reduce the patient to a most deplorable state; the countenance becomes distorted; the eyes fixed and sunk; cold sweats and death closes the tragic scene. It is in hot climates that this disease principally occurs, the symptomatic does now and then happen in northern latitudes, but rarely ever the idiopathic. The principal causes are, great fatigue; exposure to cold and wet while the body is much heated; excesses of all kinds; irritation in the stomach and bowels from worms, &c.; affections of the mind. All which may excite tetanus spontaneously, or after any surgical operation. The wounds more particularly apt to induce it, are those where tendons, &c. are punctured or torn, or where a nerve is partially divided; also gun shot wounds, and injuries of the fingers and toes. In these cases the symptoms come on about eight days after the receipt of the injury, while the former invades the patient three or four days after the exposure. The symptomatic cases are the most curable.

Treatment. This is extremely various, and generally very unsuccessful. Some authors advise copious bleedings and other evacuants. Dr. Rush and others (See *Trans. Amer. Phil. Soc. vol. 2*) are in favor of wine, bark, cordials and stimulants, besides diluting the wound and promoting suppuration by applications of warm turpentine, &c. Others prefer a speedy salivation. Others again repeated submersion in the cold bath, which seems to be admitted to be much more successful than the warm. The practice of M. Larrey who accompanied the French army to Egypt was very successful. It principally consisted of emollient applications to the wound, with nitre, opium, camphor, interally. He gave all his medicines in sweetened emulsions, which he says the patients can swallow with more ease. If fever was present he let blood. A valuable remark of his was, that when perspiration occurred on the head and extremities, it was symptomatic, but when upon the chest and abdomen it always proved critical. The hot bath, blisters, moxa, &c. he found useless. He is also in favour of amputating the injured part. This

latter resort, however, is opposed by others. Opium, when given, should be in very great quantities, as it rarely produces any drowsiness, and when, in consequence of spasm, nothing can be got into the stomach, it must be exhibited in clysters, for in bad cases there is often such a dread of liquids that convulsions are excited when attempts are made to swallow them. Mr. S. Cooper says from all he has read, the facts are in favor of the following plan: 1st. Removal of the wounded part and exhibition of opium, camphor, musk, and other antispasmodics. 2d. Cold bathing and opium. 3d. Cold bathing and strong stimulants, as volatile alkali, brandy, spices, &c. 4th. Mercurial frictions, practised so as quickly to induce a salivation." (*Surg. Dict. Art. Tetanus.*) If a nerve be partially divided, it should be wholly so by the surgeon, without loss of time; fragments of bone, when causing irritation should be removed. It is usual in warm climates, to apply to amputated stumps and other wounds, a mixture of tincture of opium, and to excite a gentle salivation, as prophylactics. A case has been favourably treated with prussic acid, by Dr. Niles of Boston.

Trismus Nascentium, or Locked Jaw of Infancy. This is a very fatal disease, and is chiefly met with among the negro children of the West Indies, and occurs always before the ninth day from birth. It is generally confined to the muscles of the jaw, though other muscles are occasionally affected. Strabismus and subsultus tendinum are sometimes present. Its causes are said to be, retention of the meconium, dividing the navel string with blunt instruments, using violence in effecting its separation from the child, and neglect of the sore afterwards. The smoke of the wood fires in the negro huts is stated by Dr. Clarke to be the chief cause, which is however denied by Dr. Thomas.

Treatment. The disease being, in almost every instance, fatal, it is of the utmost importance to prevent it, by avoiding the causes just enumerated. Besides the proper management of the navel string and keeping the bowels freely open with castor oil, the mother and child should be well nursed, and kept in a warm dry comfortable apartment, and a solution of opium frequently applied to the navel string. Should an attack come on, opium and other antispasmodics, as advised for tetanus. Consult *Dr. Clarke on Diseases of West Indies*; also *Dr. Thomas's Prac. Physic.*

TETTERS. *Herpes.* This is an eruption of broad itchy spots upon the skin, of a whitish or red colour, which run into each other, discharge a thin serous fluid, and

causing excoriations or ulcers. After a time scurfy scales appear, and peel off. The same appearances are soon renewed in a successive series, often continuing for a long time. It may be caused by bad diet, want of cleanliness, &c. and is sometimes constitutional. The ointments of zinc and white precipitate of mercury, and washes prepared of the same, are most useful. We may use internally blue and plummer's pills, decoction of sarsaparilla, sulphuric acid internally, also externally. (Acid. Sulph. 3ss. Ungt. Simp. 3j. M.) We may also employ the warm bath. Milk diet, avoiding salt food.

THROAT. See *Cynanche*. Also *Wounds*.

THRUSH. *Chronic. Aphtha Chronica.* This disease, Dr. Thomas says, is prevalent in the West Indies, but may occur in our climate, when cold is combined with much moisture, or when the soil is marshy. It, for the most part, occurs in the advanced stage of fevers, &c. marking debility and exhaustion; and although sometimes considered idiopathic, yet such cases do arise from a disordered state of the stomach and bowels.

Symptoms. Preceded by a burning heat in the stomach, pimples, about the size of a pin's head, appear upon the tip and sides of the tongue, which spread over the whole inside of the mouth, causing so much soreness, heat and pain, that the patient is unable to take any article of hard or stimulating food. There is also fever, a remarkable dryness of the skin, languor, small pulse, sense of coldness, particularly of the extremities. These symptoms, although the patient is occasionally temporarily relieved by acid eructations, purging and vomiting of acrid matter, may continue many weeks, greatly distressing and emaciating the patient, and may even prove fatal.

Causes. General relaxation; cold combined with moisture; obstructed perspiration; old and debilitated habits. The eruption is said to exist throughout the intestinal tube.

Treatment. The first step to be taken is to evacuate the stomach and bowels, by emetics and purges, which must be repeated as often as there appears any necessity for their use. We are next to allay acidity by absorbents, and to restore the tone of the digestive functions by means of bark, wine, cordials, bitters, &c. together with a diet of arrow root, jellies, soups, &c. As auxiliaries, sudorifics to restore the deficiency of perspiration: and alteratives, plummer's and the blue pill, to correct the other secretions. Diarrhœa, when too severe, to be checked with opium and astringents. Gargles should be used frequently, composed of alum, borax, &c. Clysters of ycal broth,

decoctions of linseed, mucilage of acacia gum, &c. Warm clothing, gentle exercise, &c. Those cases which come on in the latter part of fevers, generally require cordials, stimulants, and absorbents.

THRUSH IN INFANTS. *Aphthæ.* The difference is not material between this disease and that just described, as it for the most part arises from acidity, acrid matter, worms, and other sources of irritation in the alimentary canal. Bad air, bad nursing, milk from an unhealthy mother, coarse food, children brought up by hand, exposure to cold, &c. are sufficient to induce a state of the system favorable to its production. It requires the same treatment.

TIC-DOULOUREUX. Called by Dr. Fothergill, who just noticed the disease, *Faciei morbus nervorum crucians*. A painful affection of the nerves of the face. This is a disease excruciatingly painful, coming on by sudden and frequently repeated paroxysms, having intervals of perfect ease. Its extreme severity will distinguish it from tooth-ache and all other diseases. Its seat seems to be in the substance of the nerve affected, whether it be inflammation or otherwise is not exactly understood. The nerves most frequently affected are the ramifications of the portio dura of the seventh pair, or the pes anserina as it passes over the face, and the filaments of that branch of the fifth pair, which issue from the infra-orbitary foramen. It has occurred in the nerves of the finger. There are no external marks of disease.

Treatment. Frictions, blisters, electricity, opium, and a host of remedies have been unsuccessfully tried in this disorder, and the only cure seems to be, that of cutting off the communication between the part affected and the brain, by an actual division, and in some instances by removing a portion of the nerve itself. Late authors, however, apprise us that some of those cases are nothing more than a high degree of rheumatism, depending upon a disordered state of the primæ viæ and that consequently cures have been effected by emetics, purges, blue pill, bark, &c. Those cases said to be cured with carbonate of iron and calomel purges, were probably of this kind. When a simple division of the nerve only is attempted, it can be easily effected by passing down under it a sharp pointed bistomy, and bringing up through the nerve without farther external incision. Should the nerve unite after the operation and the pain return, the operation should be repeated.

TINEA CAPITIS. This disease consists in a chronic inflammation of the skin of the head, productive of a se-

cretion of matter peculiar in its nature, and capable of propagating the complaint, if applied to the scalp of a healthy subject. At first, the eruption is confined, probably, to only a small portion of the head; but by degrees its acrimony is extended to the neighbouring parts, and at length the whole of the scalp is eroded, and beset with a scabby eruption. Dr. Willan has substituted the term *Porrigo* for that of *Tinea*, as being less objectionable, and considers this genus as consisting of several varieties.

Children are principally affected with it, particularly those of the poor; hence it evidently arises from uncleanness, from the want of a due proportion of wholesome nutritive food, and possibly from bad nursing. At any rate, these will very much aggravate the disease. In many instances it is propagated by contagion, either by using a comb imbued with the matter from the head of a person labouring under it, or by putting on his hat or cap.

When proper means are adopted, the disease seldom proves of difficult cure.

The treatment consists in shaving the head close, and afterwards covering it with an ointment made of sulphur and pitch, or muriated mercury and pitch, previous to the daily application of which it may be washed with a little of either of the lotions here advised. *R. Picis Liquid. ℥ss. Cerae Flav. ℥ss. Sulph. Sublimat. ℥ij. M. ft. Unguentum. Vel R. Unguent. Picis Liquid ℥ij. Hydrargyr. Oxymuriat. gr. vj. M. ft. Unguentum. Vel R. Tabaci ℥ss. Aq. Fontan ℥j. Coq. ad. ℥ss. et Colature, adde Liquor. Potassæ Sulcarb. ℥j. M. ft. Lotio. Vel R. Potassæ Sulphuret. ℥ss. Liquor. Calcis ℥j. Liniment. Saponis ℥j. M. ft. Lotio.* If these should fail, we may substitute astringent or stimulating applications, paying a cautious attention at the same time to the general health. As a covering for the head, we may use the oiled-silk cap.

In those scurfy eruptions of the head which are observed in children, and where a thin ichor pervades the cuticle and excoriates the parts, the application of a little of the ointments made thus, *R. Cret. Præparat. Hydrargyr. Præcipitat. Alb. āā ℥j. Plumbi Superacet. ℥ss. Unguent. Hydrargyr. Nitratis ℥ij. Unguent. Picis Liquid. ℥ij. M. ft. Unguentum. Vel R. Adipis Suillæ ℥i. Æruginus. Hydrargyr. Præcip. Alb. āā ℥j. M. ft. Unguentum.* will be found of considerable utility, and will indeed seldom fail of effecting a radical cure. It should be applied every night, covering the parts with a bladder or linen, and again be washed off in the morning with soap and water.

In the cure of tinea capitis, cutting off the hair as close as possible, well washing the parts with warm soap and water, and afterwards sprinkling them pretty thick with powdered charcoal night and morning, has proved very efficacious.

Besides these external applications, it may sometimes be necessary to administer alterative medicines at the same time. R. Magnes. Carbonat. Hydrarg. cum Sulph. āā gr. v. Hydrarg. Submuriat. gr. $\frac{1}{4}$ --- $\frac{1}{2}$ M. ft. Pulvis hora somni sumendus. *Vel* R. Antimon. Sulphur. Præcipit. gr. i. Hydrargyr. Submuriat. gr. ss. Sacchar. Alb. Pulv. gr. v. M. ft. Pulvis Mane et nocte capiendus. *Vel* R. Hydrarg. Submuriat. 3ss. Antimon. Tartarizat. gr. xv. Opii Purificat. 3ss. Syrup. Simpl. q. s. M. Fiant Pilulæ lx. quarum sumat æger, j. vel ij. omni nocte hora decubitus. The doses must be varied according to the age, constitution, &c. of the patient; and if acidity abounds in the primæ viæ, some absorbent, such as the creta præparata, or magnesiæ carbonas, according as the bowels may be more or less affected, should be combined. In all cases the body ought to be kept open. The occasional use of a tepid bath might probably be of some service.

The eruption in tinea has been known to give way to the internal use of sulphuric acid, where only wheat flour has been applied externally. It is said to have been frequently cured likewise by testaceous powders alone; two materials very different in their chemical properties, but agreeing in their power of promoting cutaneous absorption.

If the glands of the neck should happen to swell on the head becoming dry, we ought to advise the insertion of an issue in the neck, or the occasional application of a blister to it.

The diet in tinea capitis should be wholesome and nutritive, avoiding salted meats and fish.

TINNITUS AURIUM. *A ringing in the Ears.*

TONGUE, *Diseases of.* *Inflammation.* This may arise spontaneously, though it commonly proceeds from excessive salivation, or the small pox. The inflammation and swelling is so enormous, and so rapid, as to interrupt deglutition and respiration, and even actually to cause suffocation. Such cases require the most energetic employment of bloodletting, purging, and other means advised under inflammation. It is also necessary to apply blisters to the neck, and to open the raninal veins. But we are informed by *M. de la Malle and M. Louis in the Mem. de l'Acad. de Chirurgie. Tom. 5th.* that the most effectual way of relieving the patient, is to make a longitudinal in-

cision on each side of the dorsum of the tongue, from one to two inches in length. A copious bleeding follows, attended with vast relief. Should suppuration or mortification ensue, these results must be treated accordingly; frequent washing with emollient gargles will be proper. The exciting cause must be removed or obviated. If mercury it should be instantly discontinued; if from small pox, the pustules should be opened; if from foreign bodies as fish bones, &c. they must be extracted. Food and medicines may be conveyed into the stomach, by means of an elastic bougie, passed down the nostril into the œsophagus. Consult *S. Cooper, Surg. Works.*

ULCERS, INDURATIONS, &c. Ulcers are sometimes seen on the tongue of a very foul, painful, obstinate, and malignant looking kind, which are entirely produced by a sharp rough-edged, or carious tooth. This is easily ascertained by examination, and also easily remedied by filing down or extracting the tooth. A disordered state of the primæ viæ, will sometimes cause these ulcers, when emetics, purges, and alteratives are proper. The frequent application of leeches is also useful in some of these cases. Where taking cold during the use of mercury has been the cause, the mercury must be suspended, the patient kept in a warm dry room, and gentle purging, with mild gargles employed. The tonsils, are also often affected at the same time; such cases should not be mistaken for venereal ulcers, as a continuance of the mercury would be very deleterious. There is one species of malignant looking ulcer, cured by a long continued course of tartar emetic.

CANCER OF THE TONGUE. Many ulcers, Mr. Cooper says, deserving the epithet malignant, and cancerous, not unfrequently form on the tongue; sometimes appearing in its incipient state as a sore; sometimes a circumscribed moveable, or immoveable scirrhus swelling, which gradually becomes painful and ulcerates. Sometimes there is a mere induration without swelling. All these cases are surrounded by the peculiar hardness, and attended by the peculiar lancinating pain of cancer, and chiefly make their appearance on the sides and apex of the tongue. In some instances, the whole or a large portion of the surface of the organ has been seen covered with numerous small schirrous tubercles, which gradually fall into a state of ulceration. These Mr. Cooper says he has seen much diminished by mercury. Indeed in all the cases just mentioned, cicuta, and other means for the relief of cancer, should be tried, before resorting to the knife. The state of the primæ viæ should be particularly attended to. However, much time should not be lost in the trial of re-

medies, when the disease is not much benefitted or appears upon the increase.

The Operation. The point which chiefly claims our attention, is the hemorrhage which follows the operation. For the suppression of this, we must be fully prepared before hand. The surgeons upon the European continent, in these cases, rely almost exclusively upon the actual cautery. Still, however, as Mr. Cooper says, it may be possible to put a ligature about the vessels, by means of two pair of forceps, after having drawn them out with a tenaculum. If this fails, pressure and styptics, as a strong solution of alum, diluted sulphuric acid, &c. may be tried, and rather than the patient should die of hemorrhage the trunks of the lingual arteries should be tied as they pass over the os hyoides. In all cases it is of the utmost importance that the whole diseased mass be extirpated and that no portion remain behind. The French, and others, frequently apply the cautery to destroy all vestiges of the complaint; perhaps caustic may suffice. In beginning the operation, the mouth must be kept asunder by placing some firm substance between the teeth, the tongue is next to be drawn out of the mouth, either with the fingers of an assistant and a dry towel, or a pair of flat forceps, which Louis has advised. When the disease is situated far back, we are to be armed with a pair of hooks. A complete excision of the diseased mass is now to be accomplished with a bistoury. When the disease is extensive, it may be necessary, for the preservation of the patient's life to amputate the entire tongue, to a more or less extent; for instances are upon record, where the remaining portion has exercised the functions of the organ in a tolerable degree. The removal of the part has been effected by means of a ligature. This is at least a very painful, if not an inefficacious operation. It is performed by passing a needle, with a strong double thread through the whole thickness of the organ a sufficient number of times to enclose and completely insulate the affected mass, which after some days sloughs out. When the disease is very extensive, and the lymphatic glands below the jaw are contaminated it is too late to perform any operation. The palliative treatment is all we can resort to in such cases.

TUMOURS OF THE TONGUE. Encysted tumours of this organ are mostly of the malignant kind, and should be carefully dissected out with a tenaculum and scalpel, and if possible without opening the cyst.

The glandular papillæ upon the dorsum of the tongue which naturally terminate with a broad head supported by a narrow base, not unlike a mushroom, sometimes en-

large to a great degree. They are easily removed with the knife or ligature.

PRETERNATURAL ENLARGEMENT. This is either the effect of original malformation, or some chronic disease, and if no other effects, than that of its cumbersomeness arise, the surgeon should not interfere, but if mastication, swallowing, or respiration, is much impeded, it may be proper to remove such portion of it as is practicable, more particularly if the part to be operated upon, be well within reach of the operator. M. Louis has contributed much information on these subjects in the *Memoirs of the French Surg. Acad.*

TONGUE-TIED. This depends, either upon the frænum extending too near its apex, or by its being too short, so as not to allow of the tongue's due elevation. The former is by far the most frequent. Both cases impede sucking and articulation. The operation for dividing the frænum linguæ should never be performed unless the child is unable to suck, and even then not till an accurate examination of the mouth has been made, for the difficulty may arise in consequence of adhesions of the tongue to the sides of the mouth, (which could be easily separated with a spatula) or from the nipple of the nurse being very large. In the latter case, by improperly dividing the frænum, the tongue may lose its equilibrium, so as to fall over into the throat and endanger suffocation. The same may also happen if the preternatural membrane be divided to too great an extent, the division then should not be more than is necessary to remedy the defect in sucking or articulating. In the natural state, about a quarter of an inch from the apex backwards, remains unconnected with the frænum, and the preternatural elongation of the frænum generally consists of a fine transparent membrane. A pair of sharp scissors with blunt points is the best instrument, when if the tongue be gently raised with the fore finger of the surgeon's left hand, the operation can be immediately accomplished. It certainly must be a very careless operator who wounds the raninal arteries, nevertheless it has been done, and children have bled to death in consequence of it. But the raninal veins may be wounded, and even from the small vessels of the divided membrane the hemorrhage has been fatal. The child finding a fluid in its mouth makes efforts to suck, by which the bleeding is kept up, and the blood is swallowed, consequently there may be no suspicion of the nature of the case until it is too late. The stomach after death was found full of blood.

M. J. L. Petit, who found all styptics and other remedies fail in arresting the hemorrhage invented a very ingenious contrivance. It consists of a small forked piece of birch, the prongs of which are eight lines long, the handle four. This is to be covered over with a piece of linen, and placed under the tongue in such a manner, that the end of the handle will rest against the concavity of the under jaw, while the prongs embrace and make pressure upon each side of the frænum. The tongue is to be fixed by applying the middle of a roller far back on its dorsum, and the ends after crossing each other under the chin, are to be pinned to the child's cap. The same bandage may be used for confining the tongue when from any cause it is disposed to fall back into the thorax. It is to be taken off in order that the child may be put to the breast, after which it must be reapplied. Should the tongue fall over into the throat during these operations, it can be easily reduced with the fore finger. The mother should be instructed to do this, as delay will very probably be attended with suffocation.

TONICS. By this term is meant, such articles as give tone and strength to the system, as the stomachics; chalybeates; sulphates of copper and zinc; arsenic; nitrate of silver; wine, &c.

TONSILS and UVULA, Diseases of. Permanent enlargement of the tonsilglands often happens from repeated attacks of cynanche tonsillaris, and sometimes without evident cause. The affection is not painful and may not be regarded, unless it proceed to an extent which excites difficulty of speech, deglutition and respiration. As all discutient remedies prove unavailing, we have no alternative but to remove the part. The knife or scissors or ligature are now exclusively resorted to for this purpose. Of the different ligatures which have been used, none seem so simple as that recommended by Desault, and called *serre-nœud*, (*Desault par Bichat, Tom. 2.*) But as the ligature produces much pain and inflammation, and as the removal of a portion only of the enlarged gland is generally sufficient to relieve the patient, the greater part of English and American surgeons employ the knife. By this method we have only to lay hold of the gland with a tenaculum and amputate as much as may be judged necessary, repressing the hemorrhage by directing the patient to gargle his mouth frequently with cold water. It is proper during the operation, that an assistant keep open the mouth and depress the jaw with a spatula. Sometimes these swellings are very hard, yet they are not to be considered scirrhus. Scirrhus and cancer, however, do sometimes attack these glands; in such cases no remedy pre-

sents itself but a complete extirpation of the whole diseased mass. Calculous concretions now and then form here, impeding deglutition, &c. Proper incisions must be made and the earthy matter extracted. Mr. S. Cooper sums up much information upon this subject. See his *Surg. Dict. and First Lines*.

When the *Uvula* becomes permanently elongated so as to excite coughing, retching, &c. the redundant part should be removed, which can be easily done, by laying hold of it with a pair of forceps and amputating it with a pair of scissors or a knife. No hemorrhage of any consequence follows this operation. Slight elongations of the uvula may be removed by astringent gargles of alum, bark, &c.

TOOTHACH. *Odontalgia.* This arises from a carious state of the tooth. Pain in the teeth is sometimes rheumatic, when generally several teeth are painful, and often the whole face and head on the same side.

Treatment. Laudanum, oil of cloves, tinctures of camphor and opium, &c. to relieve the pain after which it may be plugged with gold or silver if not much diseased. But if this fails to give relief, or if the tooth be extensively decayed it should be extracted.

The patient should avoid cold and fill his ears with cotton wool. Toothach arising in cases of ptyalism require the palliative treatment, and not extraction, unless the pain be very obstinate and the tooth much diseased. The same may be remarked when it arises in pregnant women, for here it depends upon sympathy or irritability, insomuch that general bleeding, and opium internally may in a few cases be necessary. When rheumatism of the face is present also, it will be better to remove that first, by applying a blister behind the ear, and liniments to the parts in pain. The radix pyrethrum is of much service, applied to the gums, as it excites a copious secretion from the surrounding glands. The primæ viæ should be evacuated.

Teeth ought to be cleaned daily with a soft brush and pure water, the tartar never to be suffered to accumulate, and occasionally some dentrifice used, composed of testaceous powders, as carbonate of lime. Sponginess of the gums to be removed by astringents, as powder of bark, charcoal, &c.

TRISMUS. *Locked-Jaw.* See *Tetanus*.

TUMOURS. *Tumores.* As Mr. Abernethy, in his classification of tumours, restricts the term to such swellings as arise from some new production which made no part of the original composition of the body, by which means he excludes all simple enlargements of bones, joints, glands,

&c., I shall only in this place speak of sarcomatous and encysted tumours. Some glands, however, Mr. A. admits, are enlarged, owing to a tumour growing in them, condensing the natural structure of, or causing the absorption of the original gland. Sometimes also, the disease of the gland seems to produce an entire alteration of structure in the part; the natural organization being removed, and a new-formed diseased structure substituted in its stead. In either case the disease of the gland is designed to be included in this definition. (See *Practical Observations on Tumours*, &c.) The same celebrated author informs us, that all tumours are, in all probability, formed from a coagulum of blood which has become extravasated, either by accident or disease. This, if not removed by the absorbents, becomes regularly organized by vessels and nerves from the adjacent parts shooting into it, either through the neck, in pendulous tumours, or irregularly from all parts of its attachment in those of diffused base. If these continue to grow, and its own vessels assume their functions to develop it by the inexplicable operation of the secreting arteries. The kind of disease formed probably that for which a predisposition exists in the system, by virtue of hereditary taint or other causes equally inexplicable. In those tumours when the diseased action is confined to its own sphere, and merely draws a supply of blood from the healthy surrounding parts, extirpation of the tumour effects a cure; but when the adjacent parts partake of the same action with the tumour, they too must be included in the operation, or a re-appearance of the disease may be expected. The growth and pressure of the tumour upon the adjacent cellular substance, forms for it a capsule, and when the tumour has been painful, tender, and inflamed, it is found more adherent to the neighbouring parts, and their increased irritation after attaining some magnitude, is the reason why they, then, often grow more rapidly. The growth of tumours is supposed to depend upon an increased action of the vessels, and is termed *chronic inflammation*, from its slowness.

The growth of tumours may sometimes be checked, and even diminished, by the application of leeches and cold saturnine lotions, and when the increased action is abated, by the use of discutients, as minerals, frictions, pressure, liniments, issues, blisters, &c. But very few are entirely recovered, and the remedies, sometimes, have the effect to bring on suppuration, followed by an ill conditioned ulcer, rendering extirpation to a large extent necessary. The only practice is then, to remove all tumours early, before

they acquire much magnitude, as the operation is of course much less formidable than when they have attained a considerable size.

SARCOMATOUS TUMOURS. These are the kind of tumours which Mr. Abernethy has classified in terms derived from their anatomical structure ; they are not enveloped in any perfect cyst, and are by him divided in eight orders, as follows :

1st, *Common, vascular, or organized Sarcoma.* This order comprehends all those tumours which appear to be composed of the gelatinous part of the blood, rendered vascular by the growth of vessels in it, in the manner before described, and having no other peculiarity of structure like the other orders. This is the most simple structure, and which is the original state of all tumours, prior to their own vessels assuming their functions to develop that disease to which there exists a predisposition. As they grow large, the vessels upon their surface become varicose, and if neglected will ulcerate, and slough out, forming a natural cure. But so great is the constitutional disturbance, that it is far better to remove them early by excision.

2d, *Adipose Sarcoma.* These fatty tumours are the most common, are surrounded by a thin capsule, are not very vascular, consequently are easily and safely removed.

3d, *Pancreatic Sarcoma.* These resemble the pancreas, are composed of irregular shaped masses, connected by a fibrous. They are most common in the female breast, on the side of the nipple next the arm. "It is," Mr. Abernethy says, "characterized by slowly and regularly increasing, not prone to inflammation or tending to suppuration." Sometimes, however, it does inflame, attended with lancinating pains and adhesion of the integuments to the tumour, and the axillary glands enlarge, inflame, and then subside into chronic induration. Mr. A. did not find it necessary to extirpate more than the tumour in such cases.

4th, *Cystic Sarcoma.* So named from its containing cysts, or cells, the cavities of which contain a serous carious matter. Most common in the testes and ovary, though it may occur in other parts.

5th, *Mastoid or Mammary Sarcoma.* This resembles the gland of the breast, is not very frequent, is generally lost in the surrounding substances, which probably retain a disposition to resume the disease. On this account Mr. Abernethy advises a free removal of them.

6th, *Tuberculated Sarcoma.* This consists of an "aggregation of small roundish tumours, of various sizes and

colours, connected together by a kind of cellular substance." Mr. Abernethy has chiefly seen this disease in the lymphatic glands of the neck. The tumours ulcerated, became painful and incurable sores, and destroyed the patients. Indeed it is so terrible a disease, that it may be deemed a fatal one; fortunately it is uncommon.

7th, *Medullary Sarcoma*. This more particularly affects the testicle, (see *Testicle, Diseases of*,) and resembles the medullary substance of the brain, and is remarkable for being readily propagated along the absorbents. The inguinal glands are soon affected, enlarge to a very great magnitude, slough, and bleed profusely, which can only be suppressed by continual pressure. The gland at length heals, when another becomes affected, and goes through the same process. The disease extends into the abdomen, and the patient is destroyed. It is supposed to be the same disease as *Fungus Hæmatodes*, which see.

8th, *Carcinomatous Sarcoma*. See *Cancer*. This Mr. S. Cooper says, does not properly enter into the above arrangement, and moreover cancer is not always a tumour, being frequently shrunk, and even smaller than in the healthy state. Peruse Mr. Abernethy's *Surgical Obs. on Tumours, &c.* J. Bell's *Surgery*.

ENCYSTED TUMOURS, vulgarly called *Wens*. These swellings are all contained in a cyst, or bag of a firm consistence, sometimes quite thin, at others as thick as parchment, or even cartilage, in most cases, however, its thickness is proportioned to the age of the tumour. Though generally consisting of one cavity, yet sometimes tumours are found intersected with several partitions. Encysted tumours are of three kinds, and designated according to their consistence, viz. 1st, *meliceris*, or those containing a fluid, or honey-like matter; 2d, *antheroma*, when of a poppy quality; 3d, *steatoma*, when fatty. Sometimes when the tumour bursts, an ossified matter is thrown out, and what is remarkable, forms a complete horn; Sir A. Cooper in his lectures exhibits one of this kind exactly resembling the horn of a ram! These tumours are not painful, are generally loosely situated just under the skin, and grow, if left alone, particularly the steatomatous, to an enormous size. Some persons have an extraordinary disposition to encysted tumours; upwards of twenty have been met with in the same patient; the scalp seems more especially their seat; they are there mostly of the antheromatous kind. They are frequent too upon the face of children, also upon the eyelids, when they cause ophthalmia and opacity of the cornea if not removed. In these situations they are smooth, whitish, and often inflamed,

suppurate, and get well. Notwithstanding this it is always better to extirpate them than to promote suppuration, as a troublesome sore is often the result. Attempts too for discussing them do not seem to deserve much praise. The best discutients, when used, are common sea salt, sea weed, muriate of ammonia, &c. See *J. Bell's Prin. of Surgery*.

The OPERATION for removing tumours, consists in making an incision through the skin in the direction of the muscular fibres across the tumour, and carefully dissecting it out; taking care that the cyst be not opened during the operation, and that every part of it be removed. When the tumour is large, it is proper to make a double elliptical incision, in order to remove a portion of integuments, which facilitates the operation; and cicatrization is more ready, than when a redundance of integuments is left. Any large vessels that are wounded must be tied. The tumour being removed, and the blood cleansed from the wound, its lips are to be brought together and united with sutures or adhesive plaster secured with bandages. The first dressings are not to be removed for several days.

TYMPANY. *Tympanites*. This is an extreme distention of the abdomen, from an accumulation of an enormous quantity of wind; the abdomen upon percussion, sounds like a drum, or bladder filled with air; hence its name. It consists of two species, 1st, *tympanites intestinalis*, when the flatus is confined to the intestines only; and 2d, *tympanites abdominalis*, when the air has escaped from the intestines into the cavity of the peritoneum, in consequence of erosion, which erosion is the effect of other diseases.

Symptoms of the first species. Sometimes comes on suddenly, at this slow, preceded by great flatulence, borborygmi, expulsion of air, colic pains, dyspepsia, great swelling of the belly which retains the same figure under every alteration of position, is elastic, and without fluctuation. In an advanced stage there arises difficulty in voiding the urine, costiveness, pyrexia, and general emaciation, together with cough, difficult respiration, increase of swelling, and at length dropsy or gangrene ensues.

Causes. Sudden suppression of long continued discharges, as chronic diarrhoea, issues, &c. repelled eruptions; use of crude vegetable aliment, &c.

In the 2d species, the swelling is more general, equal and elastic; the tension is greater, and there is but little or no discharge of flatus. The tension, elasticity, and drum-like sound upon percussion, will distinguish tympanites from all other diseases. It is generally very obstinate.

Treatment of the 1st species. The indications are to evacuate the accumulated air by frequent mild purges; by emollient and carminative clysters, exhibited twice or thrice a day; by keeping an unarmed clyster-pipe, or other tube without the rectum, to take off the stricture of sphincter ani, and to afford exit to the air; by frictions of rubefacients; by warm plasters and constant pressure upon the abdomen by means of a laced waistcoat; by blisters. The bowels may be assisted in their contractions, by the use of carminatives, antispasmodics, and sometimes by the applications of pounded ice to the belly, or cold bath. The *next indication* is to prevent a reaccumulation of air, by restoring the tone of the stomach and bowels, by the remedies advised for dyspepsia; by putting the secretions in a healthy condition, with alteratives of the blue or Plummer's pill; by a diet of animal food, jellies, arrow root; by proper exercise, &c. Bleeding has been occasionally employed when much fever has existed.

The *2d species* requires much the same treatment, and in some severe cases evacuating the air by puncturing with a trochar will be advisable. But this kind will be mostly fatal.

TYMPANITES UTERI. An accumulation of wind in the uterus, manifested by a distension in the hypogastrium, and occasional discharges of air from the orifice of the womb.

TYPHUS. See *Fever*.

ULCERATION. The third termination of inflammation. See *Inflammation*.

ULCERS. By an ulcer is meant a breach of continuity, or chasm in the soft parts, attended with a secretion of pus or other discharge. This chasm is a loss of substance, caused by the process of ulceration, in which the old substance is taken up by the absorbents, more quickly than the new is formed by the secreting arteries; by wounds which have failed to heal by the first intention, or in consequence of mortification. There are many divisions and distinctions of ulcers, but I shall follow Mr. Cooper (See *First Lines*) in considering them of five kinds; viz. the *healthy*, the *irritable*, the *indolent*, the *varicose*, and the *specific*. This division is analogous to that of Mr. Home, (see his *Prac. Observ. on Ulcers of the Leg*) except that he makes a variety of the *indolent* ulcer, which he considers as depending upon weakness of the part.

1st, HEALTHY ULCERS. These secrete white, thick pus, which does not adhere to the surface; and their granula-

tions are small, florid, and have pointed tops, and soon cicatrize. These ulcers being in a healing state, the surgeon has only to keep the parts clean, and to apply dry lint, and over this simple ointment, and a bandage to retain the dressings and to give degree of support to the muscles, &c. But ointments will sometimes disagree with all sores, particularly if rancid. So too will bandages occasionally; in such cases they should be laid aside.

2d, **IRRITABLE ULCERS.** These are characterized by a jagged margin, terminating in a sharp undermined edge; the bottom of the ulcer is made up of concavities of different sizes; the granulations are white and spongy, covered with an ichorous discharge; painful, and disposed to bleed when touched. This irritation may be constitutional, from bad state of the primæ viæ, &c. Mr. Home says, that what will suit one ulcer, will not another; and what will agree to-day will not to-morrow; therefore he advises the surgeon to have at command an assortment of applications.

Treatment. *Emollients*, as the steam of warm water, mixed with spirits; poultices; fomentations of poppy heads, &c. *Sedatives*, as extract of hemlock and opium, dissolved, and used as a fomentation; also solution of opium, (a drachm and a half to a pint of water,) as a wash. Carrots boiled, bruised and made into a poultice. Powdered charcoal and cream. Solutions of lead or nitrate of silver, &c. Ointments and bandages are not generally useful, by making too much pressure. *Alteratives*, change of air, &c. when the health is impaired.

3d, **INDOLENT ULCERS.** These are uncommonly frequent in the London hospitals, and are, in appearance, the reverse of those just described. Their edges are round, smooth, and prominent; the granulations smooth and glossy; the pus imperfectly formed, mixed with coaguable lymph, and adhering to its surface; the bottom is bare. these appearances sometimes vary, and the ulcer may somewhat resemble the irritable. The granulations are weak, and are often suddenly absorbed without any obvious cause, except that they are of a loose flabby texture. Poultices are not good applications, for the granulations produced by them are weak, and liable to be absorbed, and if the ulcer heals, it is very apt to break out again; the same may be said of emollients generally. However emollients may be proper for a few days, to reduce what inflammation may have been created by walking or neglect of cleanliness. Stimulants seem to be proper applications, accordingly it was customary to use ointments containing gums, red precipitate, &c. &c. also diluted nitric and vitri-

olic acids, solutions of nitrate of silver, tincture of myrrh, &c. Some years ago Mr. Wheatley, (see his *Prac. Observ. on Ulcers of the Legs*) strongly recommended pressure upon the limb, by means of a flannel roller carried from the foot to the knee. About the same time Mr. Baynton (see his *Account of New Method of treating Old Ulcers of the Legs*) published his method of applying strips of adhesive plaster, the excellence of which is now universally admitted. The strips are to be cut from two to three inches broad, long enough to surround the whole limb, and must be evenly and regularly laid on, one above another, as tight as the patient can well bear, until the whole entire surface of the ulcer is covered, from one inch below, to one or two above its bounds. A soft compress is then to be laid over the ulcer, confined with a cotton roller, carried from the foot to the knee. The whole to be kept wet with cold spring water, which prevents inflammation, and allows the plasters to be readily taken off. By this method the soft granulations are kept down upon a level with the edges of the wound, which is very favourable to healing; the process of skinning being considered somewhat analogous to purging. It also approximates the sides of the ulcer, and renders the cicatrix more sound, durable, and less extensive. The patient is able, in many instances, to pursue his ordinary business. The system may require bark, &c. in some of these cases.

VARICOSE ULCERS. These ulcers are attended with, and kept up, by a varicose state of the veins of the limbs. They are chiefly situated on the inside of the leg, near the ancles or instep; their edges high, callous, and painful to the touch; are of a brownish red colour, which extends some way beyond its margin. The pain and swelling is always increased by walking, standing, &c. and the reverse when in a horizontal posture. Small distended vessels, or tumours, are always to be seen near the sore, sometimes insulated, at others congregated.

Treatment. The varicose state of the veins being the obstacle to recovery, numerous expedients have at different periods been resorted to to remedy this evil, such as excision of the varixes, tying the veins, compression. The latter, however, only receives the sanction of the surgeons of the present day. Accordingly, rest, a simple dressing and a roller, carried from the foot to the knee, are now the chief remedies. But Mr. Home says, he has met with some varicose ulcers which did not yield to this treatment, in consequence of which he practised tying the vena saphena as it passes over the knee, for the purpose of creating an artificial valve, and thereby taking off the su-

perincumbent weight. But as Mr. S. Cooper says, probably all the good effects supposed to arise from this operation, may be justly given to the confinement to the horizontal posture enjoined after the operation.

SPECIFIC ULCERS. Here is complicated, some peculiar morbid action, either owing to the state of the constitution, or to some peculiarity in the part itself; scrophula, lues venerea, cancer, &c. are examples. There are numerous other ulcers arranged under this head by Mr. Home, without any distinct appellation, some of which yield to mercury, others to arsenic, others to hemlock, &c. A summary of which may be found in S. Cooper's Surg. Dict. Consult *Bayton, Wheatley, Home on Ulcers. B. and J. Bell's Surg. Hunter on Blood, &c.*

† **ULCER, Phagedenic.** An ulcer which spreads and eats away the flesh. See *Venereal Disease*.

UNION by the FIRST INTENTION. This process is said to take place, when the opposite sides of a wound are brought into contact, and grow together at once without suppuration. It was formerly believed, that red blood effused from the vessels became organized, and formed the bond of union, but this idea is now abandoned, and it is advised, at all times, to remove as much of the loose blood as possible before closing the wound. The union is effected by means of the adhesive inflammation. When any part of the body sustains an injury, albumen, or as it used to be called, coagulable lymph, is thrown out by the surrounding vessels; into this albumen, arteries, veins, nerves, and absorbents, shoot, and completely organize it; thus it becomes a bond of union between the divided surfaces. The powers of nature in this particular are strikingly exemplified by numerous cases upon record, particularly that of M. de la Peyroue, communicated to the Academy of Surgery in France, stating that a man had received a cut on his arm which divided the bone and all the soft parts except the principal vessels and an inch of integument. The parts being neatly adapted and confined by suture, the whole arm fully and perfectly united. The wound caused by amputating the thigh, has completely united in three days. The experiments too of Mr. Hunter in planting the spur of a cock into his comb, also engrafting the testicles of the same animal into the abdomen of another when they immediately grew, are well known. In attempting this kind of union we are 1st to check hemorrhage by tying vessels or otherwise; 2d, to cleanse away the blood, and all extraneous matter; 3d, to unite the edges of the wound evenly, retaining them by strips of adhesive plaster placed at the distance of about a quarter

of an inch from each other, to favour any discharge of blood; to apply sutures if needful, also compresses and bandages, placing the parts in proper position so as to relax any muscular fibres that may be divided. No medicaments whatever should be applied to the wound before it is dressed. Spirits and evaporating lotions may be afterwards used over the dressings should there be much heat; for the adhesive inflammation is so mild, that when heat, pain, redness, and throbbing ensue, we may be sure, supuration is at hand, and should the above means not prevent it, we may find it necessary to remove sutures, sticking plaster, &c. and apply a poultice. Rest and antiphlogistic regimen are also necessary. See Article *Wounds in Surg. Dict.*

URETHRA, Strictures of. There are different distinctions of this disease, but they are probably best comprehended under *three* divisions, viz. 1st. *Inflammatory*; 2d. *Permanent*; which may be narrow as if a piece of pack thread was tied round the urethra, or more extensive like a piece of tape, or fibrous, like a piece of thread drawn across the diameter of the passage. The two former are caused by effusion into the cellular substance on the outside of the urethra, the latter by effusion into it, the result probably of the inflammatory stricture; 3d. *Spasmodic*, or contraction of the muscular fibres of the urethra. The *spasmodic* and *permanent* strictures are sometimes combined, In the *broad permanent* kinds the thickening may be entirely upon one side of the urethra, and in the *pack-thread* kind widens at each extremity, being narrowest in the middle, like two cones with their apexes in contact. There may exist at the same time, one, or more *permanent* strictures, and which are perpetually in danger of becoming more grievous by the occurrence of spasm. Some, however, doubt the muscularity of the urethra, but it is only on presumption that it is so, we can explain its morbid actions. When there exists but one stricture, it will be generally found just behind the bulb of the urethra, or about six and half or seven inches from the orifice of the urethra. The strictured part becomes sometimes quite impervious, when the patients life is saved by making an incision into the urethra beyond the strictured part, or by the urine itself ulcerating its way through the perinæum. (See *Urinary Fistula.*)

Symptoms of Stricture. Diminution of the stream of urine, which, however, is generally disregarded by the patient, until more difficulty arises, such as, a more frequent desire of voiding his urine, attended with pain near the end of the urethra, as in cases of stone; pain, strain-

ing, &c. As the stricture increases the urine is expelled in a forked or spiral stream, and is turbid; uneasiness of the loins, emissions of semen during sleep, gleet; the semen is obstructed during coition with an irritable state of the bladder, attended with mucous discharge, and sometimes swelled testicle. The patient is liable to strangury if he exposes himself to cold or commits any excesses. Cases occur in hot climates, when intermittents come on, and go through all the regular stages, the patient experiencing a frequent desire to make water during the cold fit. Mr. Hunter doubted if strictures were caused by gonorrhœa, or improper treatment of it, believing them to arise in common with strictures in other canals of the body. But the inflammatory kind is produced by stone in the bladder, piles, stimulating diuretics, fistula in ano, absorption of cantharides, &c. but most commonly from gonorrhœa. Permanent stricture is readily known from stone in the bladder, by its never passing in a full stream. The spasmodic stricture is periodical.

Treatment. In the *inflammatory* stricture we must resort to general bleeding, to purging, application of leeches, cold washes to the perinæum, pubes, &c.; also poultices and fomentations. Blisters also to these parts covered with camphor, when not arising from absorption of cantharides.

The *permanent* is treated 1st upon the principle of mechanical dilatation by means of bougies, or rather pressure, with a view to promote absorption of the effused matter outside of the urethra, which is now said to be the immediate cause of the malady. 2d. By destroying the folds of the puckerings of the stricture with caustic, as advised by Mr. Home. Sir Astley Cooper in his lectures, if I recollect, is entirely in favour of the common bougie, and Mr. S. Cooper thinks the caustic one advisable in the pack-thread stricture only. In using the common bougie we are to begin with small ones, pass them daily, and gradually increase them in size until the stricture is entirely overcome. The bougie should be retained, in the urethra for an hour to give the parts time fully to dilate; during this time the patient had better be lying down. It is well in all cases to obtain an accurate idea of the kind and situation of the stricture, which is to be done by passing a soft bougie through it, leaving it there a few minutes and marking it at the extremity of the urethra; it is then to be withdrawn, when the indentation and the mark will give the required information. In bad cases small catgut bougies must be used when others will not pass. They should remain in the urethra, so that by their expansion

the stricture may be more fully dilated. It will always be proper to pass a bougie every week, even after a cure, to prevent a relapse. The common bougies have the advantage of diluting more than one stricture, at once, which is not the case with the caustic. But if the cautic or armed bougie be preferred, a small piece of caustic should be inserted into an aperture made in the end of a common bougie and there secured. Having cleared the passage and ascertained the precise distance of the stricture from the end of the penis with a common bougie, the armed one is to be introduced and held with a moderate degree of firmness against the stricture when it is to be withdrawn. This process to be repeated daily until it passes. The habit may at the same require bark, &c. and attention should be paid to the digestive functions. In passing instruments, at all times, we are not to use very violent force or the urethra may be ruptured. Of the *Spasmodic Stricture*, see *Urine, Retention of*. Consult *Hunter on Venereal Disease*. *Home and Wheatley on Stricture*.

URETHRA, False Passage in. This is caused by the bougie when used for stricture, forcing its way through the urethra into the adjunct cellular substance, either from ulceration by pressure, caustic, or by manual violence. Into this passage all bougies will pass, leaving the stricture unmolested. The stricture being once passed it is to be treated as described in the preceding article. Elastic gum and metallic flexible catheters are useful in these cases, as the patient can through them pass his urine, without withdrawing them. It may be proper to open the whole false passage throughout its entire extent, to make it heal, and prevent the instruments from entering anew. Mr. Hunter recommends an operation for the removal of this malady. See his *Writing, on Venereal Disease*, also *S. Cooper, in Surg. Dict. Art. Urethra, False Passage in*.

URINARY ABSCESS, or Extravasation of Urine. This arises from a rupture, caused by wounds, blows, abscesses, &c. in some part of the urinary apparatus, and presents itself in three forms; 1st, collected in a kind of pouch; 2d, diffused into the cellular membrane; 3d, in an abscess, caused by its having excited inflammation and suppuration. If the pelvis or infundibula of the kidneys be ruptured, the urine will be extravasated behind the peritoneum, and often form an abscess in the loins. When the lower part of the ureters, or the lower part of the bladder, the escape of urine will be into the pelvis. When at the anterior part of the bladder, especially if the viscus be much distended, the extravasation will be above the pubes, sometimes extending to the epigastric region between

the peritoneum and abdominal muscles; it also follows the spermatic vessels, appears at the rings, and extends to the groins and scrotum. When the urethra is ruptured, the effusion is in the perinæum and scrotum, and even the penis and thighs. The extravasation of no fluid of the body causes such serious results as the urine, inflammation, supuration, and mortification, are effects almost certain to follow it. Extravasation of urine may be suspected to have taken place, when a wound has been inflicted in the vicinity of the bladder, &c. followed by tumefaction, and crackling like emphysema. If any of those parts have fairly bursted, or more properly ulcerated from retention of urine, besides the above symptoms, the patient feels entire relief from his previous pain. If the extravasation be within the abdomen, and not external, we have besides those symptoms ardent fever, thirst, hiccough, vomiting, soon followed by death.

Treatment. When the extravasation is from the infundibula or ureters, little remains to be done, but to make an opening into the part where the urine is accumulated, in order to give it exit. But as the urine will continue to flow through the artificial opening afterwards, it is of the first importance to re-establish the natural channel. This is to be effected by removing the cause of obstruction to the flow of urine through the urethra, be it stricture or calculus. The first is effected by the use of bougies, and by keeping the bladder always empty, by having an elastic gum catheter constantly in it, so that no urine can escape through the artificial aperture, which would always keep it in a fistulous state and prevent it from healing. If calculus be the cause, the proper remedies for that affection must be employed, but even in this case the elastic catheter must be used. The elastic gum catheter will here be a convenient instrument. The passage of the instrument may be facilitated by previously opening any abscess or collections of matter in the vicinity of the urethra, which may offer obstructions to its passage to the bladder. When the catheter cannot be got into the bladder, it may be sometimes advisable to puncture the bladder through the rectum or perinæum. Desault, however, preferred in all cases to evacuate the urine by making free punctures where it was extravasated, and giving the urine exit in this way while he made every exertion to pass a catheter in the mean time.

In giving exit to extravasated urine, we must not spare the parts, for in almost every case sloughing will take place. It is surprising to see how speedily a cicatrization will follow in these cases. The entire testicles have

been left naked, yet a cure speedily ensued, and that without assistance from art, but passing the catheter, applying simple dressings, keeping the bowels open, and aided by exhibiting bark, wine, and cordials when the system seemed to require support. Consult *Œuvres Chirurgicale de Desault par Bichat. Tom. 3, p. 277--287.*

URINARY FISTULA. Desault divides urinary fistula into three kinds; 1st, *blind external fistula*, which opens only externally; 2d, *blind internal*, having one opening into some part of the urinary passages; 3d, *complete*, having both an internal opening into the urinary organs, and one or more external apertures. *Of the 1st.* The obstacle to the healing of this kind, after its causes have been removed, Desault says, is sometimes owing to a thinning and denudation of the parieties of the urethra, a very common thing when the part is situated over the scrotum, so that the latter by its weight tends to separate it from the urethra. The orifice of the fistula being higher than its other extremity; it being complicated with callosities, or caries of the bones of the pelvis, are also obstacles to its healing. This kind of fistula is known from those near the rectum, (see *Fistula in Ano*) by their taking a direction towards the urethra, which can be easily ascertained by tracing it with a probe. It is also known from the other kinds of fistula, by no urine ever passing through it, by no matter passing from the end of the urethra, and a probe cannot be made to touch a catheter in the urethra. For its cure, Desault advises compression to be made directly over the part supposed to be thinned or denuded; but if the aperture be small, or the termination of the sinus be below its mouth, it must be dilated, or laid open, as advised under the articles *Sinus* or *Fistula*. Callosities may be treated with cataplasms or gentle escharotics. Caries upon general principles. A catheter in all cases must be worn.

Of 2d species. This most commonly occurs in the vicinity of the urethra, rarely from the ureters or bladder. It is caused by the bursting of an abscess into the canal of the urethra; the rupture of the latter from retention of urine; false passage; the healing of the outer wound of lithotomy before the inner. It is known from the other species, by a discharge of pus from the urethra, before or after making water; the appearance of a tumour in the urethra while passing the urine, which can be afterwards reduced by pressure, attended with a fresh discharge of urine, mixed with pus; and in attempting to carry an instrument into the bladder it becomes entangled in it. Its cure can only be accomplished by preventing the urine

from collecting in it, which is to be done by wearing a moderately sized catheter, for if one too large be employed, it will prevent the exit of the matter from the fistula, and if one too small be used, the urine will pass down beside it and again enter the fistula. Pressure applied externally may be useful.

Of 3d species. This kind is the most common, and may take place, either from the ureters, bladder, or urethra, and their orifices may be at various parts. Thus, those which arise from the uterus may terminate in the colon, and the urine be passed with the feces from the anus. But most commonly they terminate externally, in the lumbar or inguinal region. If they arise from the bladder, at its upper and interior part, they may terminate upon the surface of the abdomen, towards the navel, or even in the groins. When from the posterior part of the bladder, they mostly terminate in the abdomen and produce death. When near the bottom of the bladder, they terminate in the rectum of males, and vagina of females. But most frequently, the perinæum in both sexes is their seat. Those which arise from the urethra may terminate directly in the perinæum, the scrotum, penis, and now and then in the rectum. So remote is the termination of some of these sinuses, that they have been known to occur at the lower part of the thigh, and so numerous are the external openings, when there may be only one opening internally, that I once had a patient whose perinæum was like a sieve. The discharge of urine from the orifice of the fistula, is proof positive of the existence of this species of fistula. When the fistula originates in the bladder, the discharge of urine is for the most part incessant, though Desault mentions a case where a man in this situation passed it, as always is the case in fistula of the urethra, only when he felt an inclination to void it. When the fistula arise from the bladder or ureters, there is nothing we can do but to keep the bladder empty, and to extract calculi or any other foreign body that may be in its track. When in the lower part of the bladder, or in the perinæum, which is generally caused by stricture, it is of the utmost importance to convey a catheter into the bladder, where it should be constantly worn, at the same time it may be necessary to dilate its orifice. The catheter, of which the best kind is probably the elastic gum, should not be left off, until the sinuses have healed, and all obstructions in the passages fully removed. Fistulous openings between the bladder and vagina, are attended with much difficulty. All our means must be directed to fulfil the following indications: 1st, to keep the urine from passing into the vagina; and

2d, to promote the healing of the edges of the fistula by keeping them as much as possible in contact. The first can only be accomplished by the constant presence of a catheter, which must be carefully fixed in the bladder, Desault used a machine for this purpose, somewhat like a truss. The catheter should be of a full size, with large aperture, and the end constantly left open to favour the discharge of urine. Desault accomplished the 2d indication, by introducing a soft pessary, which had the effect of changing the opening from a round to an oval form, which brought its edges nearer into contact. Paring the edges and making sutures in the aperture have been resorted to. When the system seems disordered, and retards the cure, we are to regulate the *primæ viæ*, advise gentle exercise, change of air, cold bathing, wine, bark, &c. A sort of intermittent is not unfrequent in such cases.

URINE, *Bloody*. See *Hæmaturia*.

URINE, *Copious or Sweet*. See *Diabetes*.

URINE, *Incontinence of*. This is an inability to retain the urine, and is of three kinds. 1st, it unconsciously dribbles away from the patient; 2d, it can be retained to a certain degree, when it is suddenly and irresistibly expelled; 3d, occasionally in bed, and during sleep, is common among children. In the first species there is a weakness or paralysis of the sphincter muscle of the bladder, which allows the urine to escape as fast as it comes down from the kidneys; caused by pressure of the child's head in difficult labours; the irritation of a stone in the bladder; apoplexy, injuries and diseases of the spine; advanced stages of other diseases; congenital malformation.

Treatment. When the paralysis of the muscle seems entirely local, as when it has arisen from difficult labours, tonics and astringents will be proper; also cold bathing of the back; blistering the sacrum and perinæum; exhibiting the cantharides internally; electricity; stimulating liniments; air and exercise. When depending upon other complaints, these must be attended to.

The 2d species is spasmodic, or depends upon some irritation of the bladder when it is filled to a certain degree, such as stone, piles, fistula in ano, suppressed menses, polypi, prolapsus, &c. These causes of course must be removed, before the effects can cease. If the cause cannot be removed or ascertained, we may advise antispasmodic remedies, as opium, warm bath, uva ursi, &c. If symptomatic of hysteria or epilepsy, or in consequence of the pressure of polypi or prolapsus of the uterus, &c. these complaints must be attended to.

The 3d species is very common in children, and usually goes off as they approach the adult state. They should not be allowed to drink much at night, and should be made to empty their bladders just previous to their going into bed. Dashing cold water over the pubes, perinæum, &c. night and morning is very efficacious. In obstinate cases, a grain of the powder of cantharides may be given to an adult every night, or the same quantity of opium; blisters, liniments, and balsam copaiba may be tried. A sponge should be attached to females thus afflicted, and males should wear a jugum penis.

URINE, *Retention of.* Different degrees of this affection have received different appellations, as, *Dysuria*, when the urine is passed with pain and difficulty; *strangury*, when passed by drops only, and *ischuria* when there is a total suppression. Desault considering all these as merely different degrees of the same disease, comprehends the whole under the two terms, viz. *complete* and *incomplete* retention. I give the preference to the following divisions: 1st, that species of retention arising from weakness or paralysis of the bladder; 2d, that from inflammation of the bladder or adjacent parts; 3d, that from inflammatory and spasmodic closure of the neck of the bladder or urethra; 4th and lastly, that from obstruction in the passage, as strictures, calculi, tumours, diseased prostate, &c. &c. The 2d is spoken of under *Inflammation of the Bladder*. The 3d and 4th under stricture, gravel, &c. The first then, only remains to be described; a few remarks, however, upon retention generally, may first be proper.

Retention of urine is always an alarming disease. It is attended with acute pain in the hypogastric region, extending along the urethra to the glans penis; tumour at the lower part of the abdomen, which gradually extends upwards, and increases to an enormous size; its pressure can be felt in the rectum of males, and vagina of females. Nausea, fever, hiccough, vomiting, sweats with urinous smell, delirium, &c., are other symptoms. All these increase, when, if the patient obtains no relief some part of the urinary apparatus gives way, and the fluid is effused. See *Urinary Abscess and Extravasation*. This event will take place about the fifth or sixth day, from the beginning of the retention. When the bladder and uterus are distended to their utmost the secretion of urine is suspended. All practitioners should be aware, that when the bladder is distended to its utmost, the urine will frequently dribble away, or even be discharged in considerable quantities, but in those cases the bladder is not empty, it is in fact run-

ning over, for the tumour of the abdomen still remains, and if a catheter be passed, urine, to the amount of several pints, will be discharged. Such cases have unhappily been mistaken for incontinence of urine. The presence of the tumour must here be our principal guide, and in all doubtful cases of retention, the catheter should be passed.

Of the 1st species of Retention, or that depending upon weakness or paralysis of the bladder. In this case there is no obstruction to the flow of urine, but the bladder is incapable of performing its natural contractions to expel it. It is very common in old persons from the bladder becoming less sensible to the stimulus of the urine. The catheter can be passed with great ease, and by making pressure upon the tumour of the abdomen, a small quantity of urine can be often expelled. It comes often very gradually, the patient discharging a less and less quantity at each evacuation, until a total retention takes place. When the bladder is at length fully distended, it runs over, and the urine dribbles away continually. Besides, in old age, it may be caused by neglecting the calls of nature, by not completely evacuating the organ, by previous retention from other causes, by injuries of the spine, &c. As it relieves itself by the water dribbling away, sloughing of the parts rarely occurs, and as the catheter can be easily passed, puncturing the bladder is not necessary.

Treatment. Two indications are here to be observed; 1st, to evacuate the bladder; and 2d, to restore the natural contraction of the organ. The 1st is fulfilled by exhibiting cantharides and stimulating diuretics; by applying blisters to the sacrum and perinæum; by cold water to the hypogastrium. But if these are not speedily efficacious, the catheter must be introduced, and during the operation, the patient should be erect, and pressure be made upon the abdomen, to assist the expulsion of the urine. The 2d is accomplished by preventing any farther distortion, by passing the catheter twice or thrice a day, or by allowing an elastic gum catheter to remain in the bladder, with the end stopped up with a small cork, withdrawing the cork and evacuating the urine every three or four hours. This is much better than to suffer a constant dribbling, as it irritates the surrounding parts, and renders the patient very uncomfortable. The instrument should be withdrawn every two or three days and cleansed. When the bladder has so far recovered its tone, as to perform its functions properly, the catheter may be laid aside. But the surgeon should always be assured that the bladder is completely emptied, or the retention may re-

cur. Tonics, cantharides, turpentine, cold bathing, &c. are also proper. If the disease should arise from injuries of the spine, &c. the proper treatment in such accidents must be resorted to. Consult *Hey's Prac. Observ.* *Desault's Parisian Chirurgical Jour.* *Home's Prac. Observ. on Strictures.*

URINE, *Suppression of.* See *Urine, Retention of.*

URTICARIA. See *Nettle-Rash.*

UTERINE MADNESS. See *Insanity.*

UTERUS, *Cancer of.* See *Cancer.*

UTERUS, *Dropsy of.* See *Dropsy.*

UTERUS, *Inflammation of.* See *Inflammation of the Womb,*

UTERUS, *Inversion of.* *Inversio uteri.* This disease may be *complete*, or *incomplete*. In the latter the uterus inverts itself, and its fundus descends through its own neck into the vagina, where it can be distinctly felt in the form of a spherical tumour, around the upper part of which is felt a sort of collar, encircling it, which is nothing more than the mouth of the uterus. In the *complete*, the entire womb is turned inside out as well as the vagina, and the whole protrudes externally, hanging down between the thighs. A probe cannot be passed beside the tumour into the vagina. Both cases are attended with a sense of weight and dragging down in the hypogastric region, and the hard round substance of the uterus cannot be discovered in the abdomen; tenesmus; pain; hemorrhage; and very soon inflammation, which, if not relieved, will often terminate in mortification and death. It is caused, either by violently pulling upon the cord to extract the placenta, or by the dragging down of polypi attached to the fundus of the womb.

Treatment. When it follows the extraction of the placenta, the part must be immediately reduced, by steadily pressing the tumour upwards, for if we do not effect its reduction early, the contraction of the womb increases the difficulty. If the inversion has continued for some time, it will be necessary to bleed, give opium, and apply emollient fomentations, and then make the attempt at reduction. The bladder may be previously evacuated. After the reduction the hand should be held in the uterus for some time, to retain the organ in its place, until it is secured there by virtue of its own contraction. If we cannot return the parts, and sloughing takes place, we are to adapt our treatment accordingly. Pessaries are sometimes necessary to keep the organ in its proper place, particularly if obesity has caused the inversion, which in a few instances has been the fact. Many cases are upon

record where the irreducible uterus has been successfully amputated. For Inversion in consequence of polypi, see *Polypus*. Consult *Sabatier, Medicine Operatoire, Tom. 2. S. Cooper's Surg. Dict.*

UTERUS, Polypi of. See *Polypus*.

UTERUS, Prolapsus, Procidentia, or Falling of. Prolapsus Uteri. This is a descent of the mouth of the uterus, and is also distinguished into the *complete* and *incomplete*. In the *incomplete* the uterus is found gravitated into the vagina, causing an uneasy dragging sensation in the pelvis, impediments to the discharge of urine and feces, and a painful twitching of the parts, attended with leucorrhœa. In the *complete*, the os uteri projects through the vulva or external parts of generation, often carrying the vagina with it, so that a probe cannot be passed in beside the tumour. The dragging sensation is now increased, and the bladder is drawn backward in the situation of the uterus, to such a degree, that it, together with the meatus urinaris are brought into a horizontal line: this must be remembered when passing the catheter. The rectum is swelled and inflamed by its displacement and obstruction. The pressure, friction of the clothes, &c. cause ulcerations in the recent prolapsus, but in time the parts adapt themselves to circumstances, and the fine delicate texture of the vagina is converted into common integument. In this way the case may continue a long time, the parts protruding themselves while the patient is erect, and receding as she adopts the recumbent posture. The irritation, discharge and pain, cause dyspeptic symptoms, costiveness, &c. The pressure of the os tincæ will denote this disease from all others, from which also the menses are found to issue, and into the same aperture a probe may be passed. The *causes* are whatever weakens or relaxes the parts retaining the uterus in its natural position, as frequent labours, or abortions, getting up too soon after delivery, sedentary occupation, leucorrhœa, excess in venery. Also whatever tends to force down the uterus, as lifting, or other violent exercise. A prolapsus is often cured by pregnancy, and almost always more or less relieved, although there are a few cases upon record where the impregnated uterus was prolapsed during uterogestation, and at the period of labour.

Treatment. The indications of cure are,---to reduce the parts by steadily pressing them upwards, and to retain them there, by means of a pessary, which is easily accomplished in the *incomplete* prolapsus. But in the *complete*, particularly if it is of long standing, we shall often find it necessary to precede the effort at reduction, by

bleeding, reducing the irritation by cold washes, &c.; also by emptying the bladder and rectum. The attempt should be made, if much difficulty be anticipated, before the patient gets out of bed in the morning. Having reduced the part, a radical cure may be attempted by confining the patient to a horizontal posture; by using astringent injections; by keeping in the vagina a cylindrical piece of sponge, wet with some astringent lotion, as solution of alum, decoction of oak bark, or logwood, confining it with a T bandage. All straining at stool, or when passing the urine, must be avoided; the bowels should be kept open, and cold injections thrown into the rectum. If these remedies do not succeed after a fair trial, the pessary is to be resorted to. Some old cases cannot be reduced at all, without causing vomiting, &c. The general health must of course be attended to.

UTERUS, Retroversion and Antiversion of. In retroversion, the fundus of the uterus is thrown back upon the rectum. It chiefly occurs about the third or fourth month of pregnancy. An over distention of the bladder throws the uterus backward, which often falls down between the vagina and rectum; the stools and urine are suddenly suppressed, and on passing the finger into the rectum, a tumour is perceptible. The os uteri is drawn upwards, dragging with it the urethra, so that its surface is higher than the arch of the pubes. If the bladder be much distended the os uteri cannot be felt.

Treatment. No time is to be lost in replacing the organ in its natural situation, which event will be greatly facilitated by evacuating the bladder and rectum previously. The patient is then to be placed on her hands and knees, passing two fingers into the rectum and making pressure against the tumour upward and forward towards the navel, while two fingers of the other hand are employed in the vagina to draw downward and backward the os uteri. The projection of the sacrum is the greatest obstacle to the reduction. From the displacement of the bladder the catheter will often pass best by introducing it with its convexity towards the pubes; but in some cases it could not be introduced at all, when relief was obtained by puncturing the bladder above the pubes. Puncturing the uterus through its body with a trochar in order to diminish its size by evacuating the liquor amnii (has been resorted to in abortions,) relieves this affection.

Antiversion. In this instance the fundus uteri is thrown forward over the fundus of the bladder, while the os uteri is thrown back against the rectum. It excites a constant

inclination to evacuate the urine; the patient cannot bear pressure upon the abdomen, and the uterus falls forward as she stands erect, and falls backward when she lies down on her back. This case is easily relieved by placing the patient on her back and making pressure with the hand above the pubes, at the same time, two fingers of the other hand should be carried into the vagina, there to urge forward the os uteri. The recurrence of the accident to be prevented by wearing a pessary, keeping the patient lying on her back, and applying a compress and bandage just above the pubes. Consult *Sabatier Medicine Operative, Tom. 2.* See also *Dr. Dewees' Strictures on Dr. Merri-man's Opinions in Philadelphia Jour. Med. and Phy. Sciences, No. 2 and 3.*

UVULA. See *Tonsils.*

VACCINATION. See *Pox, Cow.*

VAGINA, *Imperforate.* Imperviousness of this part may be situated between the labia, the nymphæ, in the hymen, the vagina, and the os tincæ. But the imperforated state of the hymen is the most frequent, which in some infants is found to extend over the orifice of the urethra, and obstructing the flow of urine. An immediate incision with a small scalpel in such cases is required to give exit to that fluid; the tenseness of the membrane from the pressure of the urine behind, renders the operation easy to be performed. When the hymen is imperforated, and is situated posterior to the meatus, no inconvenience is perceived until menstruation begins; when this evacuation is obstructed, it accumulates in and distends the uterus, fallopian tubes, causing pain, swelling, giddiness, emaciation, &c. and is liable to be mistaken for chlorosis or pregnancy. These symptoms are aggravated at every monthly period, till at length the menses find some other outlet, as the lungs, nose, kidneys, &c., from whence it is sometimes impossible to restore it to its natural channel, even after the original obstacle is removed. It has happened in a few cases, that the fluid has escaped into the abdomen and caused death. This case is easily ascertained by ocular inspection, and the operation for its relief is equally simple, being nothing more than to make a conical or longitudinal incision through the membrane, and give exit to the fluid. If it does not easily flow, warm water should be injected. In this way many pounds of dark coloured blood have been evacuated. Here, as in all the operations for these kinds of obstructions, the parts must be kept asunder with a dossil of lint, for three or four days, to prevent a re-union. Sometimes the vagina is

closed by a concretion of the labia, nymphæ, or mouth of the vagina, which may be either congenital, or from inattention in keeping these parts asunder when in an excoriated state. No opening is discernible except a small one through which the urine flows, but a white raphe, or line from that opening downwards, is quite visible. These cases are to be relieved by introducing a director and slitting the part open with a bistoury in the direction of the raphe. If a director cannot be introduced the raphe must be carefully divided with a scalpel. Many other cases occur; thus, the orifice of the vagina may be closed with a fleshy mass or tumour, which has been relieved by making an incision through it and fully cutting it away. A membrane may also extend across the vagina at a greater or less distance from its mouth; adhesions may also form between the parietes of the vagina, in consequence of hard labours, inflammation, &c. these will be attended with obstructions of the menses and the other symptoms above related. Relief is to be obtained by making an incision through these obstructions, with a knife or blunt scissors, and the operation is facilitated by the presence of the menstrual flux above. Some of these preternatural membranes and adhesions are only partial, so that copulation and a regular flow of the menses may occur, yet during labour it may be found necessary to divide them to prevent laceration. The *os tinæ* may be also imperforate, either originally or from disease, and cause obstruction of the menses and all the foregoing symptoms. If it be obstructed with a thin membrane only, the pressure of the menses will generally rupture it, if it does not, it will be proper to puncture it with a small trochar. Reclosure is to be prevented by introducing a bougie or elastic gum catheter. If we are called upon to remove any of those obstructions in order to qualify young women for marriage, we are of course not to hesitate to operate agreeably to the directions just laid down. It should also be known, that the hymen, when not imperforate, or rather when it is perforated with several small apertures only, known to anatomists by the term *cribriform*, or *sieve-like hymen*, is so strong, that a woman may be impregnated without its being ruptured. In such cases it has been found necessary during labour to divide it by a conical incision. See *Sabatier Med. Oper. Tom. 1. S. Cooper's Surg. Dict.*

VAGINA, Prolapsus, or Inversion of. This case very strongly resembles a prolapsus of the uterus; the principal differences obvious are, "that the tumour formed by the descent of the uterus is very firm, and terminates in a narrow end, on which may be observed the longish trans-

verse opening, named the *ostinæ*, while that produced by the descent of the vagina, is soft, thicker below than elsewhere, and ends in an irregular aperture." *S. Cooper*. The substance displaced does not consist of the entire substance of the vagina, but the inner lining only.

Treatment. The proper application of a pessary, rest, horizontal posture, and T bandage. The tumour sometimes sloughs, when, keeping the parts clean, applying mild dressings, and relieving constitutional symptoms is all that can be done. A natural cure, if the patient's strength holds out, follows. See *Cooper's Surg. Dict.*

VARICOCELE. See *Testicles, Diseases of*.

VARICELLA. See *Pox, Chicken*.

VARIOLA. *Variolæ Vaccinæ.* See *Pox, Small, and Cow*.

VARIX. The term varices is applied to a kind of knotty, unequal, dark-coloured swelling, arising from a dilatation of different parts of the veins. The disease is mostly seen near the ankle, though it may occur on any part of the limb or even on the scrotum or abdomen, where they sometimes burst, discharge a large quantity of blood, and a troublesome ulcer ensues. See *Ulcers, Varicose*.

Varices often arise from the gravid uterus pressing upon the femoral veins as they pass into the pelvis, which, however, soon depart after parturition. Sedentary occupations, and, in short, whatever tends to retard the return of blood from the lower extremities induces this complaint. All these, however, can be generally relieved, if the case is recent, by rest, horizontal posture, cooling physic, and the application of a laced stocking. Cold lotions, and astringent applications of vinegar, &c. are also useful. In obstinate cases, the remedies must be employed with redoubled vigour. Some authors advise making a longitudinal incision through the swelling, and evacuating the blood where spontaneous rupture of it appears inevitable. *S. Cooper's Works*.

VENEREAL DISEASE. "*Syphilis*. This disease is the consequence of a morbid poison, peculiar to the human race, communicable only by contact, commonly seated on the genitals, and consequently mostly propagated during the copulation of the sexes. The origin of syphilis is a matter of dispute among the learned; the most prevalent opinion is that supported by Astruc, viz. that it was introduced from America by the followers of Columbus, and first attracted the attention of the world by its ravages in the French army at the siege of Naples, in 1494. But this opinion is not well supported by facts, and there is

but little doubt, that syphilis has existed in the old world from the earliest ages. See *Robertson's Hist. Inquiry into Origin of Venereal Disease*, in *Lon. Med. Rep.* vol. 2, p. 112 and 185. Also, *Dr. Jourdan's Work*, of Paris, on the same subject, of which there is a translation in the *Philadelphia Journal*, Nos. 4, 5, and 6.

Syphilis shews itself in what is termed *primary* and *secondary* symptoms; the *primary* are *chancre*, *bubo*, and according to Mr. Hunter *gonorrhœa*, or *clap*, (though this is now generally neglected.) See *Gonorrhœa*. The *secondary* are of two orders; 1st, ulcers in the throat or skin, or spots on the body; 2d, swellings of the bones, periosteum, and tendons called *nodes*; or elsewhere, pains in these parts. A *chancre* or sore, generally on the penis of the male, or nymphæ, clitoris, &c. of the female, is the first symptom of the disease. The matter absorbed from it in its course towards the system causes a gland in one or both groins to inflame, which soon goes on to suppuration, this is the *bubo*; from the *bubo* the poisonous matter passes into the circulation and produces in due season the secondary symptoms. Here it should be remarked, that the disease, during the primary symptoms, is local, and the matter infectious, but in the secondary symptoms the disease is constitutional, and the matter from the parts so affected, not infectious. Nor is the blood or any of the secretions of venereal patients infectious; the disease *alone* is produced by matter from a chancre or a bubo. Mercury is considered the only remedy capable of eradicating this disease. Mr. Hunter thought the disease not more severe on account of the greater quantity, or virulence of the matter received at the time of infection. The poison having got into the system Mr. Hunter was of opinion that it was soon expelled with the secretions, but that it left behind it a disposition of certain parts to farther disease, and which soon appeared in the form of secondary symptoms.

His reason for this opinion was, that when the *first order* of *secondary symptoms* has been cured by mercury, that the symptoms never returned in these parts from the same stock of infection, although the second order may afterwards ensue, requiring another course of mercury. Mr. Hunter farther believed, that although mercury would, of course, prevent a disposition to the disease if given early, yet if not given till after such disposition or contamination had taken place, that the mercury would not then eradicate it, but would merely *suspend* its action until the mercurial irritation had ceased, when the action would shortly appear.

The time necessary for the skin and throat, or the first order, to take on diseased action is about six weeks from the cessation of the mercurial action which cured the first symptoms, and in the bones, or second order, about double that time. Whatever appearances may ensue *during* the action of mercury for the cure of chancres or buboes, or even after its action has ceased, but earlier than the periods just specified, may be regarded as *not* syphilitic. If no secondary symptoms appear in three months after the mercurial action has ceased, and the body in the mean time has not been occupied with any other disease, the patient may be considered as safe.

Of Chancre. The characteristic of chancre is a thickened, hard, cartilaginous base, surrounded with an areola of inflammation; its edges are thick, circumscribed, and have a very abrupt termination, and are somewhat elevated. They are generally situated on the glans penis, or prepuce.

Treatment. Excision, or the application of lunar caustic, may put a speedy end to the sore, but during the inflammation, cold lotions, rest, and the antiphlogistic plan, with purges, forms the best practice. As soon as the inflammation is subdued, we may exhibit mercury, as a grain and half of calomel, or a blue pill night and morning, until the mouth is affected, keeping the gums tender for two or three weeks. The sore may now be washed with calomel and lime-water, and dressed with mercurial ointment, occasionally touching its edges with caustic.

Bubo. This is always confined to one gland in each groin. It begins with pain, hardness, and swelling, soon inflames and goes on to suppuration. Indolent in scrophulous habits.

Treatment. Leeches and lotions, and the antiphlogistic treatment to promote resolution, but should matter form, poultices and fomentations must be used, and at a proper time the matter evacuated. After the inflammation has entirely subsided, dress the wound and give mercury as in chancre.

Of the Secondary Symptoms. Sore Throat. The disease here appears in the form of an ulcer, and is seated upon the tonsils, fauces, or uvula, and has much the appearance of a chancre, viz. deep, with abrupt, elevated, ragged, yet circumscribed edges, exhibiting an absolute loss of substance, and having an areola. It is covered with a foul, white slough, and is sometimes attended with nocturnal pain.

Treatment. Gargles used several times a day, as R. Oxy-

muriat. Hydr. gr. v. Aq. Rosæ f. ℥ viij. m. R. Acid. Muriat. vel Nitri. f. ℥j. Aq. Rosæ f. ℥ viij. R. Myrrh. f. ℥j. m. Fumigations also of the Hydr. Sulph. Rub. thrown upon a hot piece of iron and the fumes conveyed into the throat by means of an inverted funnel, or a proper apparatus.

Eruptions. These are of a scaly kind, the scabs fall off frequently, and are as frequently renewed. These eruptions are distinguished by their copper colour, by their being generally attended with nocturnal pains, and by being preceded by other symptoms of syphilis. They sometimes run into very foul ulcers. They are to be kept clean, applying the same remedies as in chancre.

Nodes. See *this article under Diseases of the Bones.* When nodes go on to suppuration, the bones are apt to be diseased, in such cases exfoliation must be expedited in the same manner as recommended in necrosis and caries.

Nocturnal Pains. These often occur, and are generally felt in the centre of the long bones, particularly the tibiæ, and are always most severe during the night. In such cases, besides mercury, the warm bath, opium and sudorifics are proper.

See *Rheumatic Ophthalmia*, page 142.

Constitutional Treatment of the Secondary Symptoms. Mercury, either administered externally by rubbing in upon the inside of the thighs ℥ss. or ℥j. of Ungt. Hydr. every night, or the pills advised for chancre, or the oxy-muriate of mercury in small doses in solution or pill, until a copperish taste is perceived in the mouth, the breath has become fetid, the saliva increased, and the gums somewhat tender. This is to be continued for four or six weeks, and even longer if necessary. Its action is to be kept up with uniformity, but not with severity, and must not be laid aside until some time after the disappearance of all the symptoms. The operation of mercury is promoted by a light diet, avoiding high seasoned food, and where great difficulty is found in producing salivation, the warm bath is serviceable. Should the mercury run off by stool, opium must be added. The nitric acid, decoction of sarsaparilla, and other articles, are given to hold the disease in check until the system acquires strength, provided mercury cannot at first be administered from debility. They are always good auxiliaries. Mercury should not be administered during the existence of inflammatory symptoms, but such symptoms should be reduced by antiphlogistic means, as speedily as possible, when the mercury is to be immediately thrown in.

“ It is here necessary to state, that chancres are often

influenced in their progress by constitutional causes. In irritable weak habits, even after the venereal quality of the sores is destroyed by mercury, the ulceration may continue to spread, or extensive sloughs may form. The foul appearance of the diseased surface leads the unwary practitioner to increase the exhibition of mercury; and thus the system becomes more and more disordered and debilitated, and the local mischief proceeds from bad to worse.

“When chancres spread rapidly by a sloughing process, there is always strong reason to believe, that the circumstance is owing to an unfavourable state of the constitution, and irritability of the diseased part. In such cases, the omission of mercury internally should be tried; bark, fresh air, and food of a nourishing quality, should be given; and, of all local applications, not one is more serviceable, than a solution of opium, in the proportion of a drachm and a half to a pint of water. Thus the state of the system will be amended; and, as this happens, those morbid appearances of the sore, which depended on general weakness and irritability, will disappear, and then, if necessary, mercury may be given again.” Also the antiseptic cataplasms, (which see) fomentations of cicuta; washes of Fowler’s solution; of tincture of iron $\mathfrak{f}.\mathfrak{z}j.$ to $\mathfrak{f}.\mathfrak{z}\text{ viij.}$ of water; and of nitric acid in the same proportions. The term Phagedenic is applied to an ulcer in this state. The foregoing remarks are also applicable to buboes and other symptoms of syphilis. Consult *Latta, Bell, S. Cooper, and all the general writers on Surgery. Also Hunter’s Treat. on this Disease. Abernethy, on Diseases resembling Syphilis, in his Surg. Obs. Adams on Morbid Poisons.*

I must now call the reader’s attention to the modern discoveries in syphilis, by which the great principle inculcated by Hunter, that the venereal disease can only be cured by mercury, is overthrown. Numerous are the cases on record, and many authors there are to support them, which prove, that not only the *primary*, but even the *secondary* symptoms have been completely eradicated without a particle of mercury in any form. It is impossible, in this book, to convey any adequate information upon this point, I must, therefore, earnestly recommend the reader to peruse the following authors himself. *Carmichael’s Obs. on the Symptoms and Specific Distinctions of Venereal Dis. London, 1818. Obs. on the Venereal Dis. in Portugal by Mr. Ferguson in Med. Chir. Trans. vol. iv. Guthrie’s Obs. on do. vol. viii. p. 552. Rose’s Obs. on do. in do. vol. viii. p. 349.* A lucid exposition of these writers will be found in the last editions of *S. Cooper’s Surg. Dict.*

and his *First Lines of Surgery*, just republished in New York.

VENERY, *Excessive desire for in Women.* *Nymphomania*, a disorder of the reproductive organs, which reacts on the intellect. It is promoted under an idle, sedentary, luxurious life, exposure to lascivious sights, conversation and music; avoidance of which seems necessary for cure. Amputation of the clitoris is generally inefficient; most of the Egyptian women and many in the neighbouring countries undergo this sort of circumcision, without exemption from this disease. *Esquirol in Dic. des Scien. Med.*

But nymphomania is by some supposed to depend upon a state of fulness, or the presence of acrid matter in the uterine system, upon which the concomitant mental affection is secondary, they accordingly advise leeches to the genitals, cooling purges, nitre, spare diet, &c.

VERTEBRÆ, *Disease of.* This disease has been well treated of by Mr. Pott. It is marked by a loss of the power of moving the lower limbs, is most frequent in children, and goes on to an actual diseased state of the vertebral bones or their ligaments. Curvature of the spine, which is always from within outwards, soon follows, with general loss of health. It is very analogous to white swelling in the other joints, and is to be treated in a similar way. Caustic issues on each side of the column are very useful. Different machines have been invented to remove the distortion, but they are improper. Our object must be to restore the health of the child, the distortion which is apt to permanently remain is of minor importance. Consult *Pott on Paralysis of Lower Extremities. S. Cooper's Works*, &c.

VERTIGO. See *Giddiness*.

VESICULAR ERUPTION See *Pemphigus*.

VISION, *Defective.* See *Eye*.

VOLVULUS. See *Intussusception*.

VOMITING is generally symptomatic of other diseases, as gravel, injuries of the head, indigestion, &c. which complaints, of course, require primary attention. But vomiting is very frequently caused by bile, or crude indigestible matter in the stomach, when it is to be relieved by the exhibition of an emetic, followed with a cathartic. If the vomiting be supposed to arise from debility of the stomach, tonics, wine, and generous food. If from irritation, as in cases of pregnancy, or long continued vomiting from other causes, the effervescing draught, with or without opium; also a blister to the pit of the stomach.

VOMITING in Pregnant Women. Sometimes this symptom comes on immediately after conception, produced by sympathy between the stomach and the uterus, and cou-

tinues until the period of quickening. In other cases it comes on in the latter months, when it is caused by the pressure of the uterus against the stomach.

In the *treatment* of these cases, if we suspect the stomach to be charged with bile or other irritating matter, we may safely exhibit a gentle emetic. The bowels to be kept open with laxatives and clysters. Effervescing draughts and cold infusions of vegetable bitters are also useful, and as the vomiting is most troublesome when the female first gets out of bed in the morning, advantage will be obtained, by advising her to take a cup of coffee or gruel before she arises, afterwards obviating concomitant symptoms. Sometimes the vomiting is excessively severe for several days together, so as to induce the most imminent danger of abortion. In such cases it is kept up from irritation, and can only be relieved by bleeding, and opium administered so as to reduce and soften the pulse. Laxatives and clysters are also to be given to keep the bowels open. It is of the utmost consequence not to irritate the stomach by giving a multiplicity of articles; a small quantity of jelly or other light food may be given every four hours, and the thirst may be allayed by holding a piece of ice or cloth dipped in cold water in the mouth. Opium, and other medicines are best exhibited in the form of pill, and nothing should be taken for an hour or two afterwards. I have found the *Acetum Opii* (black drop) grs. xxx. every two hours until relief is obtained or the system affected, very serviceable. Brandy and cinnamon simmered, oat coffee, and the effervescing draught are useful auxiliaries. If, notwithstanding, we are baffled in all our efforts, and the woman appears to be sinking from exhaustion, it may be advisable to procure abortion by rupturing the membranes containing the foetus.

VOMITING in Infants. When the food is returned in a crude or unaltered state it may be suspected to arise from over-feeding, and to require nothing but temperance for its cure. But if arising from foulness of the stomach, indicated by acid eructations, slimy evacuations, &c., it will be proper to exhibit a gentle emetic and laxative, followed with the effervescing draught, and a drop or two of tincture of opium. If the child be not at the breast, changing the food may be found serviceable; also applying a blister to the stomach.

VOMITING and PURGING. See *Cholera Morbus*.

VOMITING at Sea, or Sea Sickness. This is entirely caused by the motion of the vessel, increased, perhaps, sometimes, by the smell of the bilge water. It for the

most part departs in two or three days, but when it continues so as to induce weakness, the bowels must be kept open, the patient must take the effervescing draught, or soda powders. Ether, as well as opium is very efficacious. The mind should be amused, and the body exercised by walking on deck or otherwise. The patient should choose a berth near the centre of the vessel, where the motion is less felt. It has sometimes proved fatal, by mere exhaustion, when of long continuance.

VOMITING of Blood. See *Hemorrhage from the Stomach*.

VORACIOUS Appetite. See *Appetite, Canine*.

WARTS. Mr. Hunter says, that a wart appears to be an excrescence from the cutis, or a tumour formed upon it, which becomes covered with a cuticle, either hard or soft, according to the hardness or softness of the skin from which it arises. Warts often bleed very profusely, and are, sometimes, very painful. Warts being adventitious substances, and no part of the original fabric, their powers of life are small, and upon the application of stimulants, soon diminish, drop off, or disappear.

Treatment. Soft warts, such as appear on the pudenda, penis, lips, &c. are most expeditiously removed, by the application of the subacetate of copper and savine leaves, powder, in equal parts and sprinkled over them daily. When hard, and situated upon the hands for instance, we may get rid of them by daily applying caustic, or the sulphuric or nitric acids, and paring down the surface as it becomes destroyed. Either kind may be removed by the knife, or ligature of silk, particularly if pendulous, applying caustic to the roots. Those arising in syphilis, have nothing of that disease in them, consequently do not require mercury, and readily yield to the above treatment.

WATCHING. This is symptomatic of fever, debility induced from hemorrhage or other causes, anxiety of mind, &c. which, of course, claim primary attention. Children sometimes do not take sufficient sleep. In such cases any defect in the state of health should be obviated, and they should be allowed to take sufficient exercise during day to induce fatigue.

WATER BRASH, or *Water Qualm.* See *Pyrosis*.

WEAKNESS, Chronic. See *Indigestion and Atrophy*.

WHITES. See *Leucorrhæa*.

WHITLOW. *Paronychia*, &c. This is a very painful and inflammatory affection at the end of the finger. Four species of it are usually described by authors. The first is

situated under the cuticle, beginning at the corner, and spreading around the root of the nail in the form of a small tumour, in which matter is collected. This is readily cured by giving free exit to the matter, and applying poultices and simple ointments. Sometimes the nail is thrown off, but another soon supplies its place. The *second* species comes on with heat, pain, soreness, &c. but the skin is not discoloured. In two or three days a thin matter shews itself just under the integuments, which must be treated in the same way as the preceding. The *third* species is much more formidable, and is situated in the theca of the flexor tendons. It is attended with extreme pain, heat, and throbbing; matter soon forms, but from the tenseness of the theca, skin, &c. over it, a fluctuation is not perceptible at the part, but often is at the joints, and even in the palm of the hand. The *fourth* species is situated under the periosteum, and is attended with deep-seated acute pain, and inflammation; the swelling in this instance is chiefly confined to the end of the finger, instead of extending to the hand, as in the last species; the bones often become carious. The throbbing in all cases of whitlow is so severe as to be felt up the arm. Its *causes* may be bruises, punctured wounds, especially when inflicted during dissections.

Treatment. Resolution is to be attempted in the outset of the malady, for in no species but the first is suppuration desirable. For effecting the process of resolution, some advise emollient fomentations and poultices, while others urge the use of astringents and discentients, as vinegar, spirits, solutions of muriate of ammonia, &c. All agree in directing, in severe cases, bleeding, purging, and opium internally, carrying the arm in a sling, &c. But when we feel assured that pus has formed, we are to lose no time in making a free incision down upon it to give it exit; applying poultices and fomentations, dilating the wound and making farther openings if necessary subsequently. Ritcher advises, in almost all cases, to make an incision whether matter flows or not; for he observes that the division of the skin and other parts takes off the tension, and insures immediate relief. See *Aufangsgr der Wundarzneey Kunst*, vol. 7. *S. Cooper's Works*.

WORMS, Intestinal. *Vermes.* The kinds of worms most frequently found infesting the human intestinal tube are three; viz. 1st, the *ascarides*, or small white thread worms, found in the rectum, lodged in a bed of mucus. 2d, the *teres*, or lunbricus, a long round worm, chiefly seated in the small intestines and the stomach. 3d, the *tænia*, or tape worm, which is flat, and consists of many

joints, each possessing a distinct animal organization; is of great length, often many yards, and extends throughout the whole intestinal tube; it is very difficult to eradicate, and is extremely common with the inhabitants of Germany and Switzerland. The *tænia* is generally found in adults, and the *ascarides* and *teres* in children. Those persons whose stomachs and bowels are loaded with mucus, whose powers of digestion are weak, and who live in a bad atmosphere, and subsist chiefly on crude or vegetable food, are most liable to be pestered with these animals.

The *symptoms* of worms are numerous, and often alarming: the following are among the most frequent. Variable appetite, fetid breath, and eructations, pains in the stomach, grinding the teeth, particularly during sleep, picking the nose, paleness, hardness and fulness of the belly, slimy stools with griping pains about the navel, heat and itching at the nose and anus, short dry cough, emaciation, slow fever, convulsions, and sometimes death. The animals are frequently voided by vomiting and by stool.

Treatment. Three classes of vermifuges are in use; 1st, Such as act by simple *purging*, as aloes, rhubarb, the submuriate of quicksilver, castor oil, &c. in conjunction with rue, tansy, wormwood, and other bitters. 2d, Such as act by *mechanically irritating* the worms, as powdered tin, cowhage, &c. 3d, Such as act *chemically*, by dissolving the mucus in which the worms are lodged, as lime-water. Pink root is a very efficacious remedy, owing no doubt to its narcotic properties, which destroy the worms. A course of the 2d class, with a purge every three or four days will rarely fail to be effectual. For the *ascarides* more particularly clysters of lime-water and aloes, also purges of the same kind are useful. The introduction of a candle smeared with mercurial ointment into the rectum, is recommended by Darwin. But in *tænia* the common spirits of turpentine in doses of f. ʒj. to iʒ fastig, is almost specific, the patient drinking plentifully of flaxseed tea or the like to defend the kidneys. Opium may occasionally be added. Turpentine clysters are useful in all cases of worms. Cataplasms of tobacco to the abdomen are recommended by Dr. Barton. Sulphurous waters are also useful. The diet should consist chiefly of animal food, avoiding crude fruits and vegetables, the patient should enjoy good air, use exercise, and take tonic medicines. I cannot quit this subject without earnestly recommending the valuable treatise of Professor Brera upon Worms, translated from the French, by Dr. Coffin, of Bos-

ton, and may be had of any of the booksellers. See also *Dr. Hooper in 5th vol. of Memoirs of London Med. Soc.*

WORM, Ring. This disease shows itself in a number of small pimples, which break out in a circular form, contain a thin acrid fluid, and itch intolerably. It is in a similar way to *tinea capitis* and indeed is of a nature somewhat like it. The eruption describes a small circle, which gradually spreads until it meets with other circles, and so on until the head is actually covered.

Treatment. We may first try the remedies recommended for the cure of tetter, when, if they fail, we may resort to those for *tinea capitis*.

WOUNDS in general. A wound is a recent and sudden breach in the continuity of parts. The danger attending wounds is in proportion to their size, their nature, whether cut, bruised, or torn, the importance of the part injured, and the state of the constitution. Thus tendons, nerves, joints, &c. when wounded are attended with much more danger than integument and muscle.

Wounds are of four kinds. 1st, *incised*, or simple division of parts with a cutting instrument; 2d, *punctured*, as those inflicted with a pointed instrument, as small sword, bayonet, &c.; 3d, *contused* or bruised; 4th, *lacerated*, when the parts are torn asunder. The 2d and 4th may be complicated with poison when inflicted with poisoned arrows, the bites of serpents or rabid animals. *Gun-shot wounds* are generally *contused*, though occasionally compounded with the *lacerated*.

Of the 1st, or Incised Wounds. All blood and extraneous matter to be carefully removed, and if no blood vessel of any magnitude be wounded, the edges of the wound is to be brought into exact contact, and retained so by sutures or adhesive plaster and bandages, giving the latter the preference in all cases where a suture is not absolutely necessary. See *Union by the First Intention*. The parts should, as much as possible, be kept at rest, and relaxed by position, particularly if the muscles be transversely wounded and much retracted. The dressings should not be removed for the first four or six days. If there be much hemorrhage from wounds of large vessels (see *Wounds of Arteries*.) This is the most simple and least dangerous. No balsams or irritating applications whatever should here be employed. Venesection and the antiphlogistic regimen, in large wounds, is sometimes necessary.

Of the 2d or Punctured Wounds. These are often dangerous from their frequently extending to a great depth, injuring blood-vessels, nerves, viscera, tendons, aponeurosis, producing violent pain, general irritation, tetanus,

extensive inflammation, formation of deep seated abscesses, &c. See *Wounds of these parts respectively*. They are also tardy in healing, in consequence of the puncturing instrument tearing and bruising the parts it passes through. The narrowness of the orifice, too, offers impediments to the extraction of foreign bodies, exit of matter, &c.

Treatment. The practice of enlarging the orifices of punctured wounds with a view of converting them into incised ones, as that of using setons, tents, injecting stimulants, &c. are improper; probing too, is only necessary to ascertain if there is any extraneous body or fragment of bone to be removed, and should not again be resorted to, unless to explore sinuses which may subsequently form. Incisions are only proper where fragments of bone or foreign bodies are to be extracted, vessels tied, or accumulations of matter to be evacuated. As a great many punctured wounds will unite throughout their whole extent without forming matter at all, we should endeavour to bring about this favourable result, after extracting foreign bodies, &c., by applying adhesive plaster and a moderately tight bandage along the track of the wound, enjoining rest and the antiphlogistic regimen; also local and general bleeding, cold washes, with purging and diaphoretics, if inflammation and sympathetic fever ensue. Opium should be administered in large doses if pain or spasms become violent. Should suppuration be inevitable, fomentations and poultices will be proper. See *Suppuration*.

Of the 3d and 4th, or Contused and Lacerated Wounds. The *contused* wound is caused by the collision of a blunt instrument against some part of the body; the *lacerated* by a force that overcomes the attraction or cohesion of the fibres of a part, by violently tearing them asunder. Both are much more dangerous than the incised. They are seldom attended with much hemorrhage, even when large vessels are injured, or limbs torn off the body; indeed the less hemorrhage, generally, the more violent is the injury. Such wounds have little disposition to unite by the first intention; for, in addition to the breach of continuity the parts are so grievously injured, that inflammation, sloughing, and death of them often follows. Violent constitutional irritation or tetanus often ensue, particularly when tendinous parts have suffered. The consequences are often fatal.

Treatment. Notwithstanding the jagged edges and unfavourable appearance of these wounds, we are, after having cleansed the parts, to approximate the lips as well as the circumstances will permit, retaining them with adhe-

sive plaster and bandages moderately tight. But if the state of the wound from its destructive violence does not admit of such treatment, we are to apply saturnine washes, poultices, fomentations, &c. And should vehement inflammation arise, the application of leeches, together with general bleeding, purging, and other antiphlogistic means will be proper. When suppuration or mortification ensues, the case must be treated accordingly. See those heads. Consult *Hunter on Blood. S. Cooper's Works, &c.*

WOUNDS OF ARTERIES. When an artery is wounded, the blood issuing is of a bright red colour, and flows per saltum, or by jerks, with great rapidity; and if the artery be compressed between the wounded part and the heart, the hemorrhage ensues. But if a vein be wounded, the blood flows in an even stream, is of a dark red colour, and requires for its suppression that pressure be made on that side of the wound most remote from the heart. The danger attending wounds of arteries is in proportion to the magnitude of the vessel wounded; thus the iliac, femoral, both tibials, interosseal, carotids, subclavian, brachial, ulnar, radial, require to be laid bare and tied to prevent the hemorrhage from proving fatal. Smaller arteries generally, though by no means always, may recover by the efforts of nature alone, or by the proper application of pressure, without being tied. Wounds of arteries internally are mostly fatal. After a considerable quantity of blood is lost it produces syncope (or even death if the vessel be very large,) which puts a period to further effusion until the patient revives, when the hemorrhage is apt to recur. Dr. Jones, from his experiments, had made out, that after the division of an artery the hemorrhage is checked by the effusion of blood into the surrounding cellular substance and between the artery and the sheath, (the former having retreated into the latter) but more particularly by the diminished velocity of the circulation. Thus a clot over the mouth of the artery, within its sheath, called by Dr. Jones the *external coagulum*, presents the first complete barrier to the effusion of blood. This sets the blood at rest within the orifice of the divided vessel, which also coagulates and forms a clot there, called by the same writer the *internal coagulum*. In the mean time the cut extremity of the artery inflames, and the vasa vasorum pour out lymph between the two clots, which intermingles with them, and adheres to the inner coat of the artery and fills up its orifice. This is the permanent cause of the suppression. The temporary coagula are soon absorbed, the mouth of the vessel contracts, while more lymph is poured out, uniting it to the sheath and surrounding parts in an un-

distinguishable mass. The artery afterwards becomes a ligamentous cord up as far as where the first branch goes off. When an artery is divided near a lateral branch, no *internal coagulum* forms. When an artery has suffered a puncture or partial division merely, blood is effused, which forms a coagulum between the vessel and its scath extending an inch or two above and below the wound. This gives a temporary check to the hemorrhage, while the *vasa vasorum* pour out lymph and permanently repair the injury. "In this way," says Dr. Jones, "a vessel, one fourth divided will heal, leaving little or no scar or obstruction in the canal." In larger wounds the effused lymph renders the vessels impervious, and sometimes its remaining part will be ulcerated through.

But when nature is thus unable to effect a cure, the surgeon is called upon to give prompt succour by tying the vessel or applying compression.

Of Compression. The Tourniquet is only of use to repress the hemorrhage while other means are preparing, and as a safeguard, by keeping on the limb to be in readiness in case of a second bleeding. Sponge tents, &c. should never be put into a wound, as they prevent union by the first intention, which is a great object to effect. A large compress confined with a bandage, when the bleeding is from a number of small vessels over an extended surface, is generally effectual. When a large artery passing over a bone is wounded, a compress in the form of a cone inverted made of cork, lincn, &c. and tightly bound on, with its apex exactly on the orifice of the wound, is often successful. The object in this case is, to completely obstruct the circulation and obliterate the wounded vessel, without impeding the circulation of the other vessels of the limb.

The *actual cautery* is much used by the French for suppressing hemorrhage, but the English only use it for bleedings in the mouth and throat. It should be applied very hot, and conveyed through a canula.

Caustics are very injudicious remedies.

Styptics are only proper when applied to extensive and diseased surfaces. When compression fails, the artery must be exposed and tied.

Of the Ligature. This is a certain remedy when the vessel is accessible. Dr. Jones says, (*see his work on Hemorrhage*) that in tying a vessel, the ligature should be drawn quite tight, as that cuts through the inner coats of the artery. This rupture of the inner coats causes inflammation, effusion of lymph, and an agglutination of the sides of the vessel by adhesive process. The vessel is bes.

taken hold of by a tenaculum, but should be drawn out from its connexions as little as possible, the ligature should be applied exactly in a circular direction, as it lessens the danger of its slipping off, and care should be taken not to include any of the adjacent substances. If the vessel is large, a ligature above and below the wound is proper to prevent bleeding from anastomosis. Sometimes it is necessary to tie the artery above the wound, when it cannot be reached at the wounded part. Ligature to come away in about fourteen days. Consult *J. Bell's* and *S. Cooper's Surgical Works*.

WOUNDS OF THE ABDOMEN. These are of two kinds; 1st, *superficial*, which require the general treatment of wounds; and, 2d, *internal*, or those which penetrate the cavity of the peritoneum.

Of the 2d kind. A narrow oblique wound may penetrate the cavity without any visible indication of it. In such cases it should be treated as a superficial wound, and no dilating with tents, &c. should be employed, when a cure by adhesion will often follow. But when any of the viscera protrude, or any of their contents, or a profuse hemorrhage, (not in the direction of the epigastric artery) issues from the wound, or blood is vomited, or passes from the rectum or with the urine, we may be assured that the abdominal cavity has been opened and the viscera injured. It is not always, however, that the viscera are wounded, even when deep stabs have been received, as the parts will often glide before the weapon inflicting the injury and be preserved; nor indeed even when some of the viscera are wounded, is the event always attended by severe symptoms. Some wounds, however, which merely pierce the peritoneum have violent symptoms, but this rather depends upon the state of the habit, and not by the admission of air as many suppose, for indeed the abdominal cavity is so occupied, that but little space is left for the admission of air.

The *constitutional symptoms* of wounded viscera are, a small, feeble, contracted pulse; pallid countenance; coldness of the extremities; great and sudden prostration of strength; hiccough; vomiting; spasms; tension of the abdomen. Some of these symptoms, however, may occur in irritable and timid subjects without any important injury, but they soon go off.

Treatment. When a portion of any viscera is protruded, and not wounded or actually in a state of mortification, it is to be reduced immediately, taking care in so doing that it does not slip between the abdominal muscles instead of

entering the proper cavity. The rectum to be previously emptied with a clyster, and the abdomen relaxed by elevating the knees, as is practised in reducing hernia. Sometimes the protruded portion is strictured when the stricture must be dilated, care, however, being taken to dilate no more than is necessary, as hernia would be apt to follow; the dilatation should be made in the direction of the muscular fibres, always taking due care to avoid the epigastric artery. Puncturing a protruded intestine to diminish its size is bad practice. If the part be really in a state of mortification, it must be left to slough as in similar cases of hernia; but should it feel firm, it may be returned, although it may have assumed a dark colour, for the reduction is always followed by a mitigation of constitutional symptoms.

The *constitutional treatment*, in all cases, consists in bleeding largely and repeatedly, notwithstanding the pulse may be weak, and general depression existing; the bowels to be kept free with clysters, and every possible antiphlogistic means adopted to keep down inflammation. The diet should be of the very lightest kind, and very small in quantity; indeed when the stomach or small intestines are wounded, we had better give the necessary sustenance for a few days in the form of nutritious clysters, allaying thirst by putting a small piece of ice in the mouth, or a rag frequently dipped in cold water.

WOUNDS OF THE INTESTINES. When a wound really does exist besides the before enumerated symptoms, a fetid air issues, and the bowel if protruded appears shrunk and collapsed, the wound too may be visible.

In the *treatment* of wounds in the intestines three modes are adopted, according to the circumstances of the case, viz. 1st, to unite the breach of continuity in the bowel by suture; 2d, to employ general means and leave the rest to nature; 3d, to endeavour to form an artificial anus.

A suture can only be applied when the wounded gut is at, or near the external wound, and then it is not used altogether with a view to cause the union of the parts, but merely to keep it near the external opening to favour the discharge of fecal matter, pus, &c. for adhesions, in a few hours, take place to all the surrounding substances, thus encasing the wounded part and preventing farther extravasation. If the wound be distant from the orifice, or if it be not discerned immediately upon the accident, no suture should be used; for in one case it would be dangerous to enlarge the wound or draw out the gut, in the other, adhesions will have already fixed the parts. Nothing then, in this case, remains to be done, but bleeding and using the

general means to avert inflammation. If the wounded part be closely in contact with the external aperture, no suture will be even then necessary. If the part protruded be wounded, it should be sewed up with a ligature and reduced, leaving the ends hanging from the aperture by which it is to be held there.

If the wound be small, one stitch is sufficient, and four will suffice even if there be a total division of the gut; some indeed advise that no stitch be used if the wound should not exceed the ordinary size of a goose quill.

If only one end of the divided gut protrudes at the wound, the urgency of the case seems to demand that the wound should be dilated in search of the other; for if the upper end be missing, certain death must follow the discharges of its contents into the abdomen, and if the lower portion be missing, the patient can only survive with the loathsome affliction of an artificial anus. If we are successful in finding the missing portion, it is to be brought to the wound. If, however, it cannot be found, and the end protruding be the upper one, we can save the patient's life by uniting it to the edge of the wound by a fine suture, when it will soon be permanently fixed by adhesions, and henceforward the feces must be there evacuated. Previously, however, to this, we must give the patient some fluid and wait to see if that pass out of the wound in order to be sure that we have the upper portion. The suture should be of silk or fine thread, and a fine round needle should be used. The threads of the suture may be cut away about the fifth day. The patient should always lie with the wound depending. The constitutional treatment as in other cases. If the case terminates favourably, the intestine at the wounded part undergoes contraction; this renders it proper the patient should avoid costiveness and eating flatulent food afterwards.

Gun-shot Wounds are seldom attended with protrusion of the bowels. General treatment only is necessary, leaving open the external aperture so long as fecal matter is discharged from it. Trusses in all cases should afterwards be worn to prevent hernia. See *J. Bell on Wounds. Travers on Injuries of the Intestines. Hunter on Gun-shot Wounds. M. Petit, and other French authors.*

Of Extravasation into the Abdomen. This occurs when blood vessels or any viscus has been wounded, though it does not always proceed to any amount, owing to the confined state of the viscera and the early adhesions thrown out around the wound, unless the patient has undergone much motion. If blood be extravasated in any quantity, it produces the following *symptoms*: 1st, paleness, faint-

ness, sinking of the pulse, and swooning. 2d, swelling of the abdomen and sundry inconveniences produced by pressure. 3d, pain, spasms, fever, inflammation, hiccough, vomiting, difficulty of breathing, suppuration or gangrene. Extravasated bile, urine, or the contents of the stomach and bowels produce all the effects of irritation in a higher and more rapid degree.

Treatment. A bandage should be applied about the abdomen to prevent, as far as possible, motion of the viscera. If hemorrhage is supposed to be still going on, we should apply cold water to the abdomen. It is advisable to evacuate the effused fluid by the wound if possible, by pressing away the internal parts from the orifice, with a probe, and the wound may in some cases be enlarged for this purpose. If fluctuation be distinct, and the fluid cannot be evacuated at the wound, it is proper to puncture with a trochar, but if the extravasated matter be feces or coagulated blood, an opening should be made with a scalpel.

WOUNDS OF THE NECK. Superficial wounds require common treatment. Persons attempting to commit suicide usually make their cut too high to injure the important parts. Air and fluids pass out of the wound if it extends sufficiently deep. If the carotid artery be wounded it should be immediately tied, taking care not to include the par vagum, or eighth pair of nerves. If the internal jugular is cut, a fatal hemorrhage may ensue; pressure should be made above the wounded part until it can be reached, and a ligature applied; small wounds may be healed by compression. The external wound should be united by the interrupted suture. If the trachea has received a punctured wound, emphysema will be produced. If it be a transverse incised wound, air rushes out, and there is a loss of voice. Sutures should be employed, but not carried through the trachea, only the substance of the cartilage, or the membrane covering it. The cough and inflammation to be kept down by bleeding and purging and very low diet. Small wounds do not require a suture; neither do gunshot wounds.

WOUNDS ABOVE THE OS HYOIDES usually penetrate the mouth, attended with hemorrhage, passage of air, food, &c. into it.

WOUNDS OF THE LARYNX produce much irritation and convulsive cough.

WOUNDS OF THE THYROID CARTILAGE, usually heal favourably. The danger is greatly increased if the nerves or blood vessels be injured.

If the œsophagus be totally divided the case may be considered fatal; and if partially divided even, the danger is

always great. Punctured wounds, however, may terminate favourably. Sutures are never used upon the œsophagus, but if the trachea be divided they may be applied upon that, which will approximate the wound of the other. Food and medicine to be injected into the stomach by means of a hollow bougie passed through the nose into the stomach. This plan may be adopted in injuries of the neck generally.

In wounds of all these parts the integuments are to be united with sutures and adhesive plaster, keeping the patient on his back with his chin immoveably fixed down upon the sternum. Active bleedings, purgings, &c. with the rigorous adoption of the antiphlogistic regimen. The mouth may be kept cool by a piece of ice or cloth dipped in cold water. See *Cooper's First Lines*.

WOUNDS OF THE THORAX. Superficial wounds require only common treatment. Stabs and gun-shot wounds are most frequent in this cavity, the most common indication of which is, rushing of air in and out of the aperture, though this is not always the case from the smallness of the opening, adhesions of the pleura, &c. The most urgent symptoms are *Emphysema*, which see. Much probing not proper. If blood be immediately coughed up upon the receipt of an injury, and blood, mucus, and air issue from the wound, the lungs are certainly injured, and which very often proves fatal, (more especially if the wound be in large vessels at the root of the lungs) by extravasation into the pleura, or large branches of the bronchiæ, producing suffocation. Peripneumony and suppuration also are among the dangerous consequences.

Treatment. If not immediately fatal our only indication is to bleed most liberally, and apply leeches externally, adopting the antiphlogistic plan. The patient should be enjoined not to talk, or breathe with any fulness; the cough is to be appeased by every possible means. The dressings to be entirely superficial. If there should be, on receipt of the injury, feeble respiration, small pulse, coldness of the extremities and swooning, bleeding must be deferred until reaction takes place, and opium given in the mean time. Adhesion in a few days takes place between the pleura costalis and the circumference of the wound, which prevents any farther passage of air or pus. It is said that the substance of the lungs sometimes becomes emphysematous; the air escapes from the air vessels into the interstitial cellular texture, so that the former are compressed, and the patient dies suffocated.

Extravasation into the Thorax. This is liable to happen

in all cases, in which the lungs, the intercostal, or internal mammary arteries are wounded. *Symptoms.* Difficult, frequently interrupted respiration; inability to stand or sit up, owing to the pressing of the fluid upon the diaphragm, the most easy posture is on the affected side; paleness of countenance; coldness of the extremities; clammy perspiration.

Treatment. This is a very urgent case; the patient is not only in danger of dying from hemorrhage, but of suffocation; the latter may be relieved by paracentesis, but then we are drawing away the blood which might otherwise by its pressure favour the formation of a coagulum. If the symptoms are not excessive, it may be better to wait; for, after a day or two, the danger of farther hemorrhage will cease. When paracentesis be resolved on, it is to be done, 1st, by putting the patient in a posture favourable to the exit of the blood from the wound, if it is large, direct in its course, or if the blood is in a fluid state. 2d, by enlarging the wound if necessary. 3d, by injecting warm water gently every day, until it returns untinged, if the blood be coagulated. 4th, by making a counter opening in a depending situation when the wound is narrow, in a fleshy part, or at the upper part of the thorax. Extracting the fluid by syringe is now but little practised. See *Paracentesis*. See *J. Bell's Discourses on Wounds*. *Sabatier's Médecine Opératoire*.

WOUNDS OF JOINTS. See *Joints*.

WOUNDS OF HEAD. See *Head*.

WOUNDS, GUN-SHOT. These are produced either by bullet or large shot, pieces of shells, splinters, &c. striking any part of the body, often entering and carrying with it pieces of the clothes. Large irregular bodies produce greater mischief than small round ones do. These wounds are always attended with contusion and laceration, and the fibres around the wound are dead, and must, in most cases, be thrown off in the form of slough. It is on this account that they bleed but little, and do not heal by adhesive inflammation. It is on this account that the extent of the injury is not at first ascertained, but in eight or ten days the dead parts separate, when there is often dangerous hemorrhage from vessels, or discharge of the contents of some viscus.

If a ball has passed with little velocity, so as to leave time to separate the fibres, the injury is less than when it passes tearing and dividing the fibres. The opening where the ball enters is small and depressed, while the aperture of its exit is larger and elevated.

If the velocity is great, the wound is more likely to be

straight. When a ball injures unimportant parts it is called a simple or flesh wound; but if it fractures a bone, wounds a large artery or any viscus, it is called compound, the danger being much greater. The form, force, and direction of the shot; the position and structure of the parts resisting, influences its course through the body. Every new resistance a shot meets in the body, lessens its momentum, and changes its direction, particularly if it strikes them obliquely. Thus a shot entering at one side of the head has made its exit at the opposite, having passed around under the scalp without injury to the skull. Violent bruising, and even comminution, of bone and muscle when the skin remains entire have erroneously been imputed to the wind of a passing ball; while in reality the mischief is produced by the ball being nearly spent and falling by its mechanical weight or striking the part very obliquely. This injury, thus received, produces, oftentimes, extensive mortification and even instant death.

Effects of, upon neighbouring parts and the system. If the concussion produced by a ball striking a bone be slight, the effect is confined to the parts injured. Sometimes the shock extends to the nearest joint, producing inflammation and suppuration. If a limb be torn off with a cannon ball, there is sometimes an instantaneous loss of all the senses, shiverings, sudden yellowness of skin, swooning, incapacity to move, (which are deemed omens of a fatal kind) and various anomalous symptoms: the injured part too, in many instances, is affected with a remarkable degree of heaviness and weakness, which alarmingly portend a tendency to gangrene.

Treatment. "When a bone, especially at the joint, is shattered into numerous fragments; when the soft parts are, at the same time, extensively lacerated, with injury of important blood vessels and mucus; and when also the whole limb is thrown into a cold insensible condition by the violence of the shock, no resource is so safe as amputation; and delay under such circumstances would lead to almost certain death." *S. Cooper.* But below this violent pitch of injury there are several inferior degrees, in which the soundest judgment is necessary to decide whether to amputate or to preserve the limb. In such cases we are to take into view the patient's constitution, his accommodations, attendance, air, &c. As in compound fracture, there are two periods when amputation may be performed; 1st, within two or three hours after the accident, before inflammation and swelling take place; and 2d, when, after some days the swelling and inflammation have abated and a free suppuration is set up, the patient having yet

adequate strength. Opinion has been much divided, as to which of those periods is most proper for the operation; modern surgeons, however, are in favour of the former, particularly the army; for the removing the wounded in wagons from the spiculæ of splintered bones still lacerating the wound, increases the mischief. The foregoing remarks apply to a stump when a limb has been torn off by a cannon ball. It is certainly better when the bone is much splintered to amputate, as it makes a clean, even, incised wound, while otherwise the extraction of splinters, the incisions into subsequent abscesses, and extensive suppuration will do equal violence to the contusion. If the injury happen near to, or extend into a joint, it will be proper to amputate above it. When the upper part of the os humeri is fractured by a musket ball, the limb may be frequently saved by making an incision down the centre of the deltoid muscle, and extracting it. Anchylosis in some cases follows, in others an artificial joint. The old practice of dilating wounds, except when to get at some wounded artery or to extract some irritating extraneous body, is improper; much probing is equally improper. If the wound is such as not to require amputation, the surgeon is first to extract foreign bodies. These are for the most part either the ball, pieces of the clothes, or splinters of bone. If a ball has entered deep, it is not to be much sought for, as it will frequently remain imbedded in the muscles, cavities, soft spongy parts of bone, &c. If a ball has entered one side, and can be felt on the other near the skin, it is not to be extracted by a counter opening unless the parts are so much injured as to render sloughing certain. When a ball is to be extracted, the fingers or small forceps are the best instruments. All extraneous bodies to be removed when near the surface of the wound, are easily got at, produce much irritation, or cause hemorrhage. Should any violent hemorrhage exist, the vessel must be laid bare and tied immediately. The limb is then to be laid on a splint, that has upon it a thick pad, and an eighteen tailed bandage. The wound to be dressed with dry lint and a pledget of common cerate. The other dressings as in compound fracture.

If the patient be young and strong, and has suffered little hemorrhage, bleeding will be proper, unless in cases of torpor, as before mentioned; then wine and cordials will be necessary, deferring the bleeding until reaction takes place. After the inflammation has commenced, leeches, cold lotions, purges, and all remedies for inflammation. After some time, poultices and fomentations, together with opium if the pain be severe. Should mortification follow,

the proper treatment must be resorted to. If the slough is thrown off it becomes a common ulcer. But the suppuration is great, and a sanies is discharged, followed by hectic symptoms. "Here the most judgment is often required to decide whether the attempt to save the limb should be continued, or amputation be done without delay." See *J. Hunter's Treatise on the Blood, Inflammation and Gun-shot Wounds*. *Larrey's Memoirs of Military Surgery*. *Guthrie on Gun-shot Wounds*, &c.

WOUNDS OF THE PAROTID DUCT. See *Fistula, Salivary*.

WORM, Guinea. *Dranunculus*. In this affection there first appears a hard tumour like a boil which goes on to suppuration, when the head of a worm a foot or two in length, and of the size and appearance of a violin string, protrudes, which is to be gradually and carefully drawn out. It is generally met with in hot climates, and is somewhat analogous to the chigre of the West Indies. See *Thomas's Practice*. *M'Gregor's Medical Sketches*.

YAWS. *Frambæsia*. This is a common disease among the negroes in the West India islands; was imported probably from Africa; it is contagious, and attacks persons but once during life. Whites are not exempt from it. The negroes frequently communicate it to each other by inoculation, in order to be exempted from labour. See page 72.

Treatment. Separate the negro from all those who have not already passed through the disease. Employ warm bath, sudorifics, &c. during the eruptive stage, afterwards decoction of sarsaparilla and other alteratives. Consult *Willan and Bateman on Cut. Dis.* *Thomas's Practice*.

YELLOW FEVER. See *Fever*.

YELLOW GUM. See *Jaundice in Children*.

YELLOW JAUNDICE. See *Jaundice*.

It will be perceived that I omitted the articles of the Materia Medica after SAGO, page 320. This was in consequence of understanding that Dr. Bigelow's "Sequel to the National Pharmacopœia" would shortly issue from the press, from which I was desirous of extracting the doses, and having done so, I trust the reader will feel himself sufficiently compensated for the discrepancy in the alphabetical arrangement. The residue of the articles now follow.

SALEP. *Salep.* Similar to arrow-root.

SARSAPARILLA. *Sarsaparilla.* The root. Alterative, antisyphilitic. *Decoctum sarsaparillæ*, same. *D. sarsap. compositum*, (Lisbon diet drink) same; also useful in chronic rheumatism. A pint may be taken during the day. *Syrupus sarsaparillæ*, same. *S. Sarsap. et Guaiaci*, same, half a pint daily.

SASSAFRAS. *Sassafras.* The bark of the root. Stimulant, diaphoretic in decoctions.

SAVIN. *Sabina.* The leaves. Powerful stimulant, diaphoretic, emmenagogue; particularly in languid habits; but in plethoric habits its use should be preceded by venæsection, gr. x. to xv. thrice daily. Externally, in form of powder or cerate, to indolent ulcers, some affections of the skin, and to blistered surfaces, to render them permanent. *Ceratum sabinae*.

SCAMMONY. *Scammonium.* The gum-resin. Drastic purgative, useful in dropsy, worms, &c. gr. v. to xv. in powder, mixed with some demulcent, or in form of pill. It is generally, however, given in conjunction with other purgatives. *Pulvis scammonii compositus*, ℞j.

SENECA SNAKEROOT. *Senega.* Sudorific, expectorant, in an over dose emetic and purgative. It is particularly useful in pneumonia as well as other pulmonic affections, rheumatism, &c. after the more active remedies of bleeding and purging have been fully resorted to, ℞j. to ij. *Decoctum senegæ*, f. ℥j. to ij. three or four times a day.

SENNA. *Senna.* The leaves. Cathartic, ℥ss. to j. in infusion. *Infusum sennæ compositum*, f. ℥ij. to iv. *Inf. sennæ et Tamarindi*, f. ℥viij. *Tinctura sennæ aromatica.* *Tinct. sennæ composita.*

SENNA, American. *Cassia Marilandica.* An indigenous substitute for foreign senna. ℥j. of the dried leaves in infusion.

SNAKEROOT, Virginia. *Serpentaria.* Tonic, diaphoretic. Useful in low stages of fevers, gr. x. to xxx. *In-*

fusum serpentariæ, f. ʒj. cold as a tonic, f. ʒiij. to iv. warm, as a sudorific. *Tinctura serpentariæ*.

SILVER. *Argentum. Argenti nitras.* Tonic, astringent, alterative, gr. $\frac{1}{2}$ gr. in solution or pills upon an empty stomach gradually increased. Externally, escharotic. A weak solution useful as a wash for indolent ulcers.

SKUNK CABBAGE. *Dracontium.* The root. Stimulant, antispasmodic and narcotic in large doses; useful in asthma, rheumatism, and hysteria. gr. x. dried root gradually increased.

SIMAROUNBA. *Simarouba.* The bark. Tonic, bitter, analogous to quassia, ʒj to ij.; best form is infusion.

SODA. *Sodæ subcarbonas.* Employed in dyspepsia, &c. acidity, gr. x. to ʒj. Useful in the same cases of calculus as magnesia and potass. *Sodæ subcarbonas exsiccatus*, same, gr. x. to xxv. *Sodæ carbonas*, same. *Sodæ subboras (Borax.)* Employed in gargles and washes, for sore nipples. *Sodæ murias*, (common salt) Tonic, antiseptic. *Sodæ sulphas*, (Glauber's salt.) Cathartic, ʒj. if in a complete state of efflorescence, ʒss. will suffice. *Sodæ phosphas*, same. Mixed in broth or gruel is almost tasteless.

SPEARMINT. *Mentha Viridis.* The herb.

SFERMACETI. *Spermaceti.* Emollient; demulcent in coughs, &c. ʒj. to ij. used also in formation of ointments.

SPONGE. *Spongia.* Used for various surgical purposes. *Spongia usta.* Used in bronchocele, scrophula, &c. ʒj. to iij.

SPURGE. *Ipecacuanha. Euphorbia ipecacuanha.* The root. Emetic, gr. x. to xx.

SPURGE, Large flowering. *Euphorbia corollata.* Cathartic, gr. v. to x.

SQUILL. *Scilla.* The root. Diuretic, expectorant; i. gr. thrice daily: in large doses, emetic and cathartic. *Decoctum scillæ*, f. ʒss. *Pillulæ scillæ*, one is a dose. *Syrupus scillæ*, f. ʒj.

STAG'S HORN. *Cornu Cervi.* Affords a nutritious jelly.

SUET. *Sevum.* To give consistence to ointments, &c.

SUGAR. *Saccharum.* Demulcent, nutritive.

SULPHUR. *Sulphur.* Cathartic, diaphoretic, ʒj. to iij. Specific in psora, externally. *Unguentum sulphuris. Ungt. sulph. compositum.*

TAMARINDS. *Tamarindus.* Refrigerant, laxative.

TAPIOCA. *Tapioca.* Similar to arrow-root.

TAR. *Pix liquida.* Stimulant, diuretic, ʒj. to ij. Externally for herpetic eruptions: inhaled in vapour for phthisis. *Ungt.*

TIN. *Stannum. Pulvis stanni.* Anthelmintic, ʒj. to ij. in the morning, followed by a purge twice weekly *Pulvis stann. amalgamatus.*

TOBACCO. *Tabacum.* The leaf. Antispasmodic, diuretic, narcotic, gr. i. thrice daily. Infusion of vinum tabaci. Linimentum tab. in tinea capitis, &c. *Infusum tab.* ʒ viij. in enema in strangulated hernia.

TOBACCO, Indian. *Lobelia.* Herb. Emetic, gr. j. to ij. *Tinctura lobel.* In asthma and rheumatism, jr ʒj.

TOLU. *Tolutanum.* Balsam A stimulating expectorant (in chronic bronchitis, asthma, and catarrh, gr. v. to ʒ ij.)

TRAGACANTH. *Tragacantha.* Gum. Demulcent (in strangury, dysentery, and catarrh: a uniting medium in pharmacy.)

TURPENTINE. *Terebinthina.* Heating, sudorific, diuretic, ʒj. to ij. *Ol. Terebinth.* diuretic, anthelmintic, ʒ ij. to ʒ ij.

UVA URSI. Leaf. Astringent, tonic, ʒj. to ij. of a decoction of, ʒ ss. of water: a gill taken three or four times a day.

VALERIAN. *Valeriana.* Root. Antispasmodic, soporific, ʒj. to ʒj. *Tinct. val.*---*Tinct. val. ammonia,* in hysterics, f. ʒj. *Infus. val. f.* ʒ iv.

WAX. *Cera.* Useful for excoriations, and as a basis of several cerates.

WILLOW. *Salix.* Bark. Tonic.

WINE. *Vinum.* Madeira or Sherry, in urgent debility, ʒ ss. hourly or half hourly. It is a menstruum for medicines.

WINTER'S BARK. *Wintera.* Aromatic, pungent.

WORMSEED. *Chenopodium.* Vermifuge. Powdered seeds in syrup, or the expressed, a table-spoon full.

YELLOW ROOT. *Xanthorrhiza.* Tonic, ʒj. to ij. powdered. *Decoct. Xan.*

ZINC. *Zincum. Zinci occidum.* Tonic, antispasmodic in chorea and hooping cough, gr. j. to v, twice a day: astringent, desiccative externally.

Zinc, Impure oxid of. *Tutty.* Used to form astringent powders.

Zinc, Impure carbonate of. *Calamine.* An impalpable powder, absorbent, astringent.

Zinc, Acetate of. Astringent, used by lotion, in ophthalmia and gonorrhœa.

Zinc, Sulphate of. Tonic, astringent, in small doses; emetic, in large ones. Used in collyriums, as a gargle, and as injection in leucorrhœa and gleet.